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OM protein - protein search, using sw model

Run on: May 24, 2002, 09:57:26 ; Search time 108.69 Seconds
(without alignments)

Scoring table: BLOSUM62

Perfect score: 597

Sequence: 1 LITTEVRLYSCTPRNFSVSI.....DVALEHHECDCVRGSTGG 1.06
343.269 Million cell updates/sec

Title: US-09-695-121-2_COPY_240_345

Searched: 3502633 seqs, 351980561 residues

Total number of hits satisfying chosen parameters: 3502263

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database : Pending_Patents_AA_Main *

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8 597 100 0 323 18 US-09-468-647-1
9 597 100 0 323 18 US-09-471-179-29
10 597 100 0 323 22 US-09-869-198A-1
11 597 100 0 339 23 PCT-US09-0518-776
12 597 100 0 339 23 PCT-US09-925-302-716
13 597 100 0 345 21 PCT-US09-01574-2
14 597 100 0 345 1 PCT-US09-15783-4
15 597 100 0 345 1 PCT-US09-22668-3
16 597 100 0 345 1 PCT-US09-31025-2
17 597 100 0 345 14 US-09-040-220-2
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20 597 100 0 345 15 US-09-184-216-2
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23 597 100 0 345 16 US-09-223-546-2
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25 597 100 0 345 16 US-09-265-686-2
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33 597 100 0 345 18 US-09-468-047-2
34 597 100 0 345 18 US-09-471-179-2
35 597 100 0 345 19 US-09-540-224-5
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43 597 100 0 345 20 US-09-688-311-51
44 597 100 0 345 20 US-09-691-200-32
45 597 100 0 345 20 US-09-695-121-2

ALIGNMENTS

RESULT 1
US-09-468-647-29 ; GENERAL INFORMATION:
; GENERAL INFORMATION:
; APPLICANT: Gordon, Robert D.
; APPLICANT: Sprengel, Jorg J.
; APPLICANT: Yon, Jeffrey R.
; APPLICANT: Dijkmans, Josien A.J.H.
; APPLICANT: Gosielska, Anna
; APPLICANT: Dhanaraj, Sridevi N.
; APPLICANT: Xu, Jean
; TITLE OF INVENTION: Vascular Endothelial Growth Factor-X
; FILE REFERENCE: B0192/7/011
; CURRENT APPLICATION NUMBER: US-09/468,647
; CURRENT FILING DATE: 1999-12-21
; PRIORITY NUMBER: GB 9828377.3
; PRIORITY NUMBER: 1998-12-22
; PRIORITY NUMBER: US 60/124,967
; PRIORITY NUMBER: 1999-03-18
; PRIORITY NUMBER: US 60/164,131
; PRIORITY NUMBER: 1999-11-08
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 29
; LENGTH: 132
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-468-647-29

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Query	Match Length	DB ID	Description
1	597 100 0 132 18 US-09-468-647-29	Sequence 29, Appl		
2	597 100 0 132 22 US-09-869-198A-29	Sequence 29, Appl		
3	597 100 0 318 1 PCT-US09-22668-5	Sequence 5, Appl		
4	597 100 0 318 18 US-09-149A-5	Sequence 5, Appl		
5	597 100 0 318 22 US-09-852-209-5	Sequence 5, Appl		
6	597 100 0 318 22 US-09-852-209A-5	Sequence 5, Appl		
7	597 100 0 323 1 PCT-US09-31025-29	Sequence 29, Appl		

Query Match 100.0%; Score 597; DB 18; Length 132;
 Best Local Similarity 100.0%; Pred. No. 9.7e-55;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 ; EARLIER APPLICATION NUMBER: 60/113,002
 ; EARLIER FILING DATE: 1998-12-18
 ; EARLIER APPLICATION NUMBER: 60/135,426
 ; EARLIER FILING DATE: 1999-05-21
 ; EARLIER APPLICATION NUMBER: 60/144,022
 ; EARLIER FILING DATE: 1999-07-15
 ; NUMBER OF SEQ ID NOS: 39
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 5
 ; LENGTH: 318;
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; PCT-US99-22668-5

RESULT 2
 US-09-869-198A-29
 ; Sequence 29, Application US/09869198A
 ; GENERAL INFORMATION:
 ; APPLICANT: Gordon, Robert
 ; SPRANGEL, Jorg
 ; APPLICANT: Yon, Jeffrey
 ; APPLICANT: Dijmans, Jos-Lena
 ; APPLICANT: Gosiewska, Anna
 ; APPLICANT: Dhaaraaj, Sridevi
 ; APPLICANT: Xu, Jean
 ; TITLE OF INVENTION: Vascular Endothelial Growth Factor-X
 ; FILE REFERENCE: 51935/004
 ; CURRENT APPLICATION NUMBER: US/09/869,198A
 ; CURRENT FILING DATE: 2001-06-21
 ; PRIOR APPLICATION NUMBER: GB 9828377.3
 ; PRIOR FILING DATE: 199-12-22
 ; PRIOR APPLICATION NUMBER: US 60/124,967
 ; PRIOR FILING DATE: 1999-01-18
 ; PRIOR APPLICATION NUMBER: US 60/164,131
 ; PRIOR FILING DATE: 1999-11-08
 ; NUMBER OF SEQ ID NOS: 97
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 29
 ; LENGTH: 132
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; US-09-869-198A-29

Query Match 100.0%; Score 597; DB 22; Length 132;
 Best Local Similarity 100.0%; Pred. No. 9.7e-55;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 ; EARLIER APPLICATION NUMBER: 60/113,002
 ; EARLIER FILING DATE: 1998-12-18
 ; EARLIER APPLICATION NUMBER: 60/135,426
 ; EARLIER FILING DATE: 1999-05-21
 ; EARLIER APPLICATION NUMBER: 60/144,022
 ; EARLIER FILING DATE: 1999-07-15
 ; NUMBER OF SEQ ID NOS: 39
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 5
 ; LENGTH: 318;
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; PCT-US99-22668-5

RESULT 3
 PCT-US99-22668-5
 ; Sequence 5, Application PC/TUS9922668B
 ; GENERAL INFORMATION:
 ; APPLICANT: LUDWIG INSTITUTE FOR CANCER RESEARCH LTD.
 ; TITLE OF INVENTION: PLATELET-DERIVED GROWTH FACTOR C,
 ; TITLE OF INVENTION: PLATELET-DERIVED GROWTH FACTOR C,
 ; FILE REFERENCE: PCT/US99/22668-LUDWIG INST FOR CANCER
 ; CURRENT APPLICATION NUMBER: PCT/US99/22668B
 ; EARLIER APPLICATION NUMBER: 60/102,461
 ; EARLIER FILING DATE: 1998-09-30
 ; EARLIER APPLICATION NUMBER: 60/102,461
 ; EARLIER FILING DATE: 1998-11-12
 ; EARLIER APPLICATION NUMBER: 60/110,749
 ; EARLIER FILING DATE: 1998-12-03
 ; PRIOR APPLICATION NUMBER: 60/113,002
 ; PRIOR FILING DATE: 1998-12-18
 ; PRIOR APPLICATION NUMBER: 60/135,426
 ; PRIOR FILING DATE: 1999-05-21
 ; PRIOR APPLICATION NUMBER: 60/144,022
 ; PRIOR FILING DATE: 1999-07-15
 ; NUMBER OF SEQ ID NOS: 39
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 5
 ; LENGTH: 318;
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; US-09-410-349A-5

Query Match 100.0%; Score 597; DB 18; Length 318;
 Best Local Similarity 100.0%; Pred. No. 2.4e-54;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 ; EARLIER APPLICATION NUMBER: 60/113,002
 ; EARLIER FILING DATE: 1998-12-18
 ; EARLIER APPLICATION NUMBER: 60/135,426
 ; EARLIER FILING DATE: 1999-05-21
 ; EARLIER APPLICATION NUMBER: 60/144,022
 ; EARLIER FILING DATE: 1999-07-15
 ; NUMBER OF SEQ ID NOS: 39
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 5
 ; LENGTH: 318;
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; PCT-US99-22668-5

Query Match 100.0%; Score 597; DB 18; Length 318;
 Best Local Similarity 100.0%; Pred. No. 2.4e-54;
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 ; EARLIER APPLICATION NUMBER: 60/113,002
 ; EARLIER FILING DATE: 1998-12-18
 ; EARLIER APPLICATION NUMBER: 60/135,426
 ; EARLIER FILING DATE: 1999-05-21
 ; EARLIER APPLICATION NUMBER: 60/144,022
 ; EARLIER FILING DATE: 1999-07-15
 ; NUMBER OF SEQ ID NOS: 39
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 5
 ; LENGTH: 318;
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; PCT-US99-22668-5

Qy 61 KVTKKYHEVQLRPKTGVRLHKSLTDVALEHHEECDCYCRCSTGG 106
 Db 273 KVTKKYHEVQLRPKTGVRLHKSLTDVALEHHEECDCYCRCSTGG 318

RESULT 5
 ; Sequence 5, Application US/09852209A

; GENERAL INFORMATION:
 ; APPLICANT: ERIKSSON, Ulf
 ; APPLICANT: AASE, Karin
 ; APPLICANT: LEE, Xuri
 ; APPLICANT: PONTEN, Annica
 ; APPLICANT: UUTELA, Marko
 ; APPLICANT: ALITALO, Kari
 ; APPLICANT: OESTMAN, Arne
 ; APPLICANT: HELDIN, Carl-Henrik
 ; BETSHOLTZ, Christer

DNA CODING

; TITLE OF INVENTION: PLATELET-DERIVED GROWTH FACTOR C,
 ; FILE REFERENCE: 09-410349-Eriksson et al-1064-44740
 ; CURRENT FILING DATE: 2001-05-10
 ; PRIORITY NUMBER: US/09/852, 209
 ; PRIORITY NUMBER: 09-410349-Eriksson et al-1064-44740
 ; PRIORITY NUMBER: 09-410, 349
 ; PRIORITY NUMBER: 1999-09-30
 ; PRIORITY NUMBER: 60/110, 749
 ; PRIORITY NUMBER: 1998-12-03
 ; PRIORITY NUMBER: 60/113, 002
 ; PRIORITY NUMBER: 1998-12-18
 ; PRIORITY NUMBER: 60/135, 426
 ; PRIORITY NUMBER: 1999-05-21
 ; PRIORITY NUMBER: 60/144, 022
 ; PRIORITY NUMBER: 09-410349-Eriksson et al-1064-44740
 ; SEQ ID NO: 5
 ; LENGTH: 318
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens

US-09-852-209A-5

Qy 61 KVTKKYHEVQLRPKTGVRLHKSLTDVALEHHEECDCYCRCSTGG 106
 Db 273 KVTKKYHEVQLRPKTGVRLHKSLTDVALEHHEECDCYCRCSTGG 318

RESULT 5
 ; Sequence 5, Application US/09852209A

; GENERAL INFORMATION:
 ; APPLICANT: ERIKSSON, Ulf
 ; APPLICANT: AASE, Karin
 ; APPLICANT: LEE, Xuri
 ; APPLICANT: PONTEN, Annica
 ; APPLICANT: UUTELA, Marko
 ; APPLICANT: ALITALO, Kari
 ; APPLICANT: OESTMAN, Arne
 ; APPLICANT: HELDIN, Carl-Henrik
 ; BETSHOLTZ, Christer

DNA CODING

; TITLE OF INVENTION: PLATELET-DERIVED GROWTH FACTOR C,
 ; FILE REFERENCE: 09-410349-Eriksson et al-1064-44740
 ; CURRENT FILING DATE: 2001-05-10
 ; PRIORITY NUMBER: US/09/852, 209
 ; PRIORITY NUMBER: 09-410349-Eriksson et al-1064-44740
 ; PRIORITY NUMBER: 09-410, 349
 ; PRIORITY NUMBER: 1999-09-30
 ; PRIORITY NUMBER: 60/110, 749
 ; PRIORITY NUMBER: 1998-12-03
 ; PRIORITY NUMBER: 60/113, 002
 ; PRIORITY NUMBER: 1998-12-18
 ; PRIORITY NUMBER: 60/135, 426
 ; PRIORITY NUMBER: 1999-05-21
 ; PRIORITY NUMBER: 60/144, 022
 ; PRIORITY NUMBER: 09-410349-Eriksson et al-1064-44740
 ; SEQ ID NO: 5
 ; LENGTH: 318
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens

US-09-852-209A-5

Qy 61 KVTKKYHEVQLRPKTGVRLHKSLTDVALEHHEECDCYCRCSTGG 106
 Db 273 KVTKKYHEVQLRPKTGVRLHKSLTDVALEHHEECDCYCRCSTGG 318

RESULT 6
 ; Sequence 5, Application US/09852209A

; GENERAL INFORMATION:
 ; APPLICANT: ERIKSSON, Ulf
 ; APPLICANT: AASE, Karin
 ; APPLICANT: LEE, Xuri
 ; APPLICANT: PONTEN, Annica
 ; APPLICANT: UUTELA, Marko
 ; APPLICANT: ALITALO, Kari
 ; APPLICANT: OESTMAN, Arne
 ; APPLICANT: HELDIN, Carl-Henrik
 ; BETSHOLTZ, Christer

DNA CODING

; TITLE OF INVENTION: PLATELET-DERIVED GROWTH FACTOR C,
 ; FILE REFERENCE: 09-410349-Eriksson et al-1064-44740
 ; CURRENT FILING DATE: 2001-05-10
 ; PRIORITY NUMBER: US/09/852, 209A
 ; CURRENT FILING DATE: 2001-05-10

Qy 61 KVTKKYHEVQLRPKTGVRLHKSLTDVALEHHEECDCYCRCSTGG 106
 Db 273 KVTKKYHEVQLRPKTGVRLHKSLTDVALEHHEECDCYCRCSTGG 318

RESULT 5
 ; Sequence 5, Application US/09852209A

; GENERAL INFORMATION:
 ; APPLICANT: ERIKSSON, Ulf
 ; APPLICANT: AASE, Karin
 ; APPLICANT: LEE, Xuri
 ; APPLICANT: PONTEN, Annica
 ; APPLICANT: UUTELA, Marko
 ; APPLICANT: ALITALO, Kari
 ; APPLICANT: OESTMAN, Arne
 ; APPLICANT: HELDIN, Carl-Henrik
 ; BETSHOLTZ, Christer

Query Match 100.0%; Score 597; DB 22; Length 318;
 Best Local Similarity 100.0%; Pred. No. 2.4e-54;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LLTEEVRLYSCTPRNFSVSIRELKRTDTIFWPGCLLVKRGGNACCLHCNECCVPs 60
 Db 213 LLTEEVRLYSCTPRNFSVSIRELKRTDTIFWPGCLLVKRGGNACCLHCNECCVPs 272

Qy 61 KVTKKYHEVQLRPKTGVRLHKSLTDVALEHHEECDCYCRCSTGG 106
 Db 273 KVTKKYHEVQLRPKTGVRLHKSLTDVALEHHEECDCYCRCSTGG 318

RESULT 7
 PCT-US99-31025-29
 ; Sequence 29, Application PC/TUS99-11025

; GENERAL INFORMATION:
 ; APPLICANT: Millennium Pharmaceuticals, Inc.
 ; TITLE OF INVENTION: SECRETED PROTEINS AND NUCLEIC ACIDS
 ; FILE REFERENCE: 7953-172-228
 ; CURRENT APPLICATION NUMBER: PCT/US99/31025
 ; CURRENT FILING DATE: 1999-12-23
 ; EARLIER APPLICATION NUMBER: 09/223, 546
 ; EARLIER FILING DATE: 1998-12-30
 ; NUMBER OF SEQ ID NOS: 135
 ; SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO: 29
 ; LENGTH: 323
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens

PCT-US99-31025-29

Query Match 100.0%; Score 597; DB 1; Length 323;
 Best Local Similarity 100.0%; Pred. No. 2.4e-54;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LLTEEVRLYSCTPRNFSVSIRELKRTDTIFWPGCLLVKRGGNACCLHCNECCVPs 60
 Db 218 LLTEEVRLYSCTPRNFSVSIRELKRTDTIFWPGCLLVKRGGNACCLHCNECCVPs 277

Qy 61 KVTKKYHEVQLRPKTGVRLHKSLTDVALEHHEECDCYCRCSTGG 106
 Db 278 KVTKKYHEVQLRPKTGVRLHKSLTDVALEHHEECDCYCRCSTGG 323

RESULT 8
 US-09-648-647-1
 ; Sequence 1, Application US/09468647

; GENERAL INFORMATION:
 ; APPLICANT: Gordon, Robert D.
 ; APPLICANT: Sprenzel, Jorg J.
 ; APPLICANT: Yon, Jeffrey R.

APPLICANT: Dijkmans, Josiena J.H.
 APPLICANT: Gosiewska, Anna
 APPLICANT: Dhanaraj, Sridevi N.
 APPLICANT: Xu, Jean
 TITLE OF INVENTION: Vascular Endothelial Growth Factor-X
 FILE REFERENCE: B0192/7011
 CURRENT APPLICATION NUMBER: US/09/468,647
 CURRENT FILING DATE: 1999-12-21
 PRIOR APPLICATION NUMBER: GB 9828377.3
 PRIOR FILING DATE: 1998-12-22
 PRIOR APPLICATION NUMBER: US 60/124,967
 PRIOR FILING DATE: 1999-03-18
 PRIOR APPLICATION NUMBER: US 60/164,131
 PRIOR FILING DATE: 1999-11-08
 NUMBER OF SEQ ID NOS: 29
 SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 1
 LENGTH: 323
 TYPE: PRT
 ORGANISM: Homo sapiens
 US-09-468-647-1

Query Match 100.0%; Score 597; DB 18; Length 323;
 Best Local Similarity 100.0%; Pred. No. 2 4e-54;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LLTEEVRLYSCTPRNFSVIREELKRTDTIFWPGCLLYKRCGGNCACCLHNCNECCQCVPS 60
 Db 218 LLTEEVRLYSCTPRNFSVIREELKRTDTIFWPGCLLYKRCGGNCACCLHNCNECCQCVPS 277

Qy 61 KVTKKYHEVLQLRPKTGYRGLHKSLTDVALEHHEECDCVCRGSTGG 106
 Db 278 KVTKKYHEVLQLRPKTGYRGLHKSLTDVALEHHEECDCVCRGSTGG 323

RESULT 9
 US-09-471-179-29
 Sequence 29, Application US/09/471179
 GENERAL INFORMATION:
 APPLICANT: Holtzman, Douglas
 TITLE OF INVENTION: SECRETED PROTEINS AND NUCLEIC ACIDS ENCODING THEM
 FILE REFERENCE: 7853-173
 CURRENT APPLICATION NUMBER: US/09/471,179
 CURRENT FILING DATE: 1999-12-23
 PRIOR APPLICATION NUMBER: 09/223,546
 PRIOR FILING DATE: 1998-12-30
 NUMBER OF SEQ ID NOS: 135
 SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 29
 LENGTH: 323
 TYPE: PRT
 ORGANISM: Homo sapiens
 US-09-471-179-29

Query Match 100.0%; Score 597; DB 18; Length 323;
 Best Local Similarity 100.0%; Pred. No. 2 4e-54;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LLTEEVRLYSCTPRNFSVIREELKRTDTIFWPGCLLYKRCGGNCACCLHNCNECCQCVPS 60
 Db 218 LLTEEVRLYSCTPRNFSVIREELKRTDTIFWPGCLLYKRCGGNCACCLHNCNECCQCVPS 277

Qy 61 KVTKKYHEVLQLRPKTGYRGLHKSLTDVALEHHEECDCVCRGSTGG 106
 Db 278 KVTKKYHEVLQLRPKTGYRGLHKSLTDVALEHHEECDCVCRGSTGG 323

RESULT 10
 US-09-695-198A-1
 Sequence 1, Application US/0969198A
 GENERAL INFORMATION:

RESULT 12
 US-09-925-302-776 Application US/09925302
 ; Sequence 776, Application US/09925302
 ; GENERAL INFORMATION:
 ; APPLICANT: Rosen et al.
 ; TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
 ; FILE REFERENCE: PA104
 ; CURRENT APPLICATION NUMBER: US/09/925,302
 ; CURRENT FILING DATE: 2001-08-10
 ; PRIORITY NUMBER: PCT/US00/05918
 ; PRIORITY FILING DATE: 2000-03-08
 ; PRIORITY NUMBER: 60/124,270
 ; PRIORITY FILING DATE: 1999-03-12
 ; NUMBER OF SEQ ID NOS: 896
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 4

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 Best Local Similarity 100.0%; Pred. No. 2.6e-54;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LLTEEVRLYSCTPRNFSVIREELKRTDTIFWPGCLLVKRCGGNCACCLHNCNECQCVPS 60
 Db 240 LLTEEVRLYSCTPRNFSVIREELKRTDTIFWPGCLLVKRCGGNCACCLHNCNECQCVPS 299

RESULT 15
 PCT-US99-22668-3
 ; Sequence 3, Application PC/TUSS9922668B
 ; GENERAL INFORMATION:
 ; APPLICANT: LUDWIG INSTITUTE FOR CANCER RESEARCH LTD.
 ; TITLE OF INVENTION: PLATELET DERIVED GROWTH FACTOR C, DNA CODING
 ; FILE REFERENCE: PCT/US99/22668-3
 ; CURRENT APPLICATION NUMBER: PCT/US99/22668B
 ; CURRENT FILING DATE: 1999-09-30
 ; EARLIER APPLICATION NUMBER: 60/104,461
 ; EARLIER FILING DATE: 1998-09-30
 ; EARLIER APPLICATION NUMBER: 60/108,109
 ; EARLIER FILING DATE: 1998-11-12
 ; EARLIER APPLICATION NUMBER: 60/110,749
 ; EARLIER FILING DATE: 1998-12-03
 ; EARLIER APPLICATION NUMBER: 60/113,002
 ; EARLIER FILING DATE: 1998-12-18
 ; EARLIER APPLICATION NUMBER: 60/135,426
 ; EARLIER FILING DATE: 1999-05-21
 ; EARLIER APPLICATION NUMBER: 60/144,022
 ; EARLIER FILING DATE: 1999-07-15
 ; NUMBER OF SEQ ID NOS: 39
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 3
 ; LENGTH: 345
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 PCT-US99-22668-3

Query Match 100.0%; Score 597; DB 1; Length 345;
 Best Local Similarity 100.0%; Pred. No. 2.6e-54;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LLTEEVRLYSCTPRNFSVIREELKRTDTIFWPGCLLVKRCGGNCACCLHNCNECQCVPS 60
 Db 240 LLTEEVRLYSCTPRNFSVIREELKRTDTIFWPGCLLVKRCGGNCACCLHNCNECQCVPS 299

RESULT 13
 PCT-US99-01574-2
 ; Sequence 2, Application PC/TUSS9901574A
 ; GENERAL INFORMATION:
 ; APPLICANT: Song, Ho Yeong
 ; APPLICANT: Na, Songgung
 ; APPLICANT: Dou, Shenshen
 ; TITLE OF INVENTION: VEGF Related Gene and Protein
 ; FILE REFERENCE: X-1851
 ; CURRENT APPLICATION NUMBER: PCT/US99/01574A
 ; CURRENT FILING DATE: 1999-01-26
 ; NUMBER OF SEQ ID NOS: 2
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 2
 ; LENGTH: 345
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 PCT-US99-01574-2

Query Match 100.0%; Score 597; DB 1; Length 345;
 Best Local Similarity 100.0%; Pred. No. 2.6e-54;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LLTEEVRLYSCTPRNFSVIREELKRTDTIFWPGCLLVKRCGGNCACCLHNCNECQCVPS 60
 Db 240 LLTEEVRLYSCTPRNFSVIREELKRTDTIFWPGCLLVKRCGGNCACCLHNCNECQCVPS 299

RESULT 14
 PCT-US99-15783-4
 ; Sequence 4, Application PC/TUSS9915783
 ; GENERAL INFORMATION:
 ; APPLICANT: Human Genome Sciences, Inc.

Fri May 24 11:24:54 2002

us-09-695-121-2_copy_240_345.rappm

Page 6

Search completed: May 24, 2002, 10:00:56
Job time: 210 sec

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: May 24, 2002, 09:57:46 ; Search time 10.89 Seconds
(without alignments)

Total number of hits satisfying chosen parameters: 116914

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Pending_Patents_AA_New:*

1: /cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep:*

2: /cgn2_6/ptodata/1/paa/US05_NEW_COMB.pep:*

3: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep:*

4: /cgn2_6/ptodata/1/paa/US08_NEW_COMB.pep:*

5: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep:*

6: /cgn2_6/ptodata/1/paa/US10_NEW_COMB.pep:*

7: /cgn2_6/ptodata/1/paa/US60_NEW_COMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

ALIGNMENTS

RESULT 1
US-09-564-595D-57
; Sequence 57, Application US/09564595D .

; GENERAL INFORMATION:
; APPLICANT: Gilbert, Teresa E.
; APPLICANT: Hart, Charles E.
; APPLICANT: Sheppard, Paul O.
; TITLE OF INVENTION: GROWTH FACTOR HOMOLOG ZWEGF4
; FILE REFERENCE: 99-19
; CURRENT APPLICATION NUMBER: US/09/564 595D
; CURRENT FILING DATE: 2000-05-03
; PRIOR APPLICATION NUMBER: US 09/304,216
; PRIOR FILING DATE: 1999-05-03
; PRIOR APPLICATION NUMBER: US 60/164,463
; PRIOR FILING DATE: 1999-11-10
; PRIOR APPLICATION NUMBER: US 60/180,169
; PRIOR FILING DATE: 2000-02-04
; NUMBER OF SEQ ID NOS: 57
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 57
; LENGTH: 303
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: fusion polypeptide
US-09-564-595D-57

Query Match 100.0%; Score 597; DB 5; Length 303;
Best Local Similarity 100.0%; Pred. No. 1.2e-53;
Matches 106; Conservative 0; Indels 0; Gaps 0;

Qy 1 LTEEVRYLSTCPTPRNFSVSTREELKRTDTIWPGLCLVKRGGNACCLHNCNECCOPVS 60
Db 198 LTEEVRYLSTCPTPRNFSVSTREELKRTDTIWPGLCLVKRGGNACCLHNCNECCOPVS 257

Qy 61 KVTKKYHEVLQLRPKTGVRGLHKSLTDVALEHHEECDCVCRGSTGG 106
Db 258 KVTKKYHEVLQLRPKTGVRGLHKSLTDVALEHHEECDCVCRGSTGG 303

RESULT 2
US-09-564-595D-56
; Sequence 56, Application US/09564595D .

; GENERAL INFORMATION:
; APPLICANT: Gilbert, Teresa E.
; APPLICANT: Hart, Charles E.
; APPLICANT: Sheppard, Paul O.
; TITLE OF INVENTION: GROWTH FACTOR HOMOLOG ZWEGF4

FILE REFERENCE: 99-19
 CURRENT APPLICATION NUMBER: US/09/564,595D
 CURRENT FILING DATE: 2000-05-03
 PRIORITY NUMBER: US 09/304,216
 PRIOR APPLICATION NUMBER: 1999-05-03
 PRIOR FILING DATE: 1999-11-10
 PRIORITY NUMBER: US 60/164,463
 PRIOR APPLICATION NUMBER: 60/180,169
 PRIOR FILING DATE: 2000-02-04
 NUMBER OF SEQ ID NOS: 57
 SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO: 56
 LENGTH: 317
 TYPE: PRT
 ORGANISM: Artificial Sequence
 FEATURE:
 OTHER INFORMATION: fusion polypeptide
 US-09-564-595D-56

Query Match 100.0%; Score 597; DB 5; Length 317;
 Best Local Similarity 100.0%; Pred. No. 1.3e-53;
 Matches 106; Conservative 0; Mismatches 0; Gaps 0;

Qy	Db	Score	DB	Length
1 LITEEVRLYSCPTPRNSVSTIRELKEKTDIFWPGCLVKRGNCACCLHNNECQCVPSS 60	212 LITEEVRLYSCPTPRNSVSTIRELKEKTDIFWPGCLVKRGNCACCLHNNECQCVPSS 271	61	KVTKKYHEVLQRPKTGVRGLHSKLTDALEHHEECDCVRGSTGG 106	272 KVTKKYHEVLQRPKTGVRGLHSKLTDALEHHEECDCVRGSTGG 317

RESULT 3
 US-09-578-403A-488
 Sequence 488. Application US/09/978403A
 GENERAL INFORMATION
 APPLICANT: Ashkenazi, Avi
 APPLICANT: Baker, Kevin P.
 APPLICANT: Botstein, David
 APPLICANT: Desnoyers, Luc
 APPLICANT: Eaton, Dan
 APPLICANT: Ferrara, Napoleon
 APPLICANT: Filvaroff, Ellen
 APPLICANT: Fong, Sherman
 APPLICANT: Gao, Wei-Qiang
 APPLICANT: Gerber, Hanspeter
 APPLICANT: Gerritsen, Mary E.
 APPLICANT: Goddard, Audrey
 APPLICANT: Godowski, Paul J.
 APPLICANT: Grimaldi, J. Christopher
 APPLICANT: Gurney, Austin L.
 APPLICANT: Hillian, Kenneth J.
 APPLICANT: Klijavin, Ivar J.
 APPLICANT: Kuo, Sophia S.
 APPLICANT: Napier, Mary A.
 APPLICANT: Pan, James
 APPLICANT: Paoni, Nicholas F.
 APPLICANT: Roy, Margaret Ann
 APPLICANT: Shelton, David L.
 APPLICANT: Stewart, Timothy A.
 APPLICANT: Tumas, Daniel
 APPLICANT: Williams, P. Mickey
 APPLICANT: Wood, William T.

TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic Acids Encoding the Same
 FILE REFERENCE: P2630501C17
 CURRENT APPLICATION NUMBER: US/09/978,403A
 CURRENT FILING DATE: 2002-09-19
 PRIOR APPLICATION NUMBER: 60/0918585
 PRIOR FILING DATE: 2001-07-30
 PRIOR APPLICATION NUMBER: 60/062250
 PRIOR FILING DATE: 1997-10-17
 PRIOR APPLICATION NUMBER: 60/081955
 PRIOR FILING DATE: 1998-04-09
 PRIOR APPLICATION NUMBER: 60/081195
 PRIOR FILING DATE: 1998-04-08
 PRIOR APPLICATION NUMBER: 60/081203
 PRIOR FILING DATE: 1998-04-09
 PRIOR APPLICATION NUMBER: 60/081229

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; PRIOR APPLICATION NUMBER: 60/081817
; PRIOR FILING DATE: 1998-04-15
; PRIOR APPLICATION NUMBER: 60/081819
; PRIOR FILING DATE: 1998-04-15
; PRIOR APPLICATION NUMBER: 60/081952
; PRIOR FILING DATE: 1998-04-15
; PRIOR APPLICATION NUMBER: 60/081838
; PRIOR FILING DATE: 1998-04-15
; PRIOR APPLICATION NUMBER: 60/082568
; PRIOR FILING DATE: 1998-04-21
; PRIOR APPLICATION NUMBER: 60/082569
; PRIOR FILING DATE: 1998-04-21
; PRIOR APPLICATION NUMBER: 60/082704
; PRIOR FILING DATE: 1998-04-22
; PRIOR APPLICATION NUMBER: 60/082804
; PRIOR FILING DATE: 1998-04-22
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; PRIOR FILING DATE: 1998-04-22
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; PRIOR APPLICATION NUMBER: 60/082796
; PRIOR FILING DATE: 1998-04-23
; PRIOR APPLICATION NUMBER: 60/083336
; PRIOR FILING DATE: 1998-04-27
; PRIOR APPLICATION NUMBER: 60/083322
; PRIOR FILING DATE: 1998-04-28
; PRIOR APPLICATION NUMBER: 60/083392
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083495
; PRIOR FILING DATE: 1998-04-29
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; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083499
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083545
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083554
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083558
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083559
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083500
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083742
; PRIOR FILING DATE: 1998-04-30
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; PRIOR FILING DATE: 1998-05-05
; PRIOR APPLICATION NUMBER: 60/084414
; PRIOR FILING DATE: 1998-05-06
; PRIOR APPLICATION NUMBER: 60/084441
; PRIOR FILING DATE: 1998-05-06
; PRIOR APPLICATION NUMBER: 60/084637
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; PRIOR APPLICATION NUMBER: 60/084598
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/084600
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/084627
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/084643
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/085339
; PRIOR FILING DATE: 1998-05-13
; PRIOR APPLICATION NUMBER: 60/085338
; PRIOR FILING DATE: 1998-05-13
; PRIOR APPLICATION NUMBER: 60/085323

Query Match 100.0% Score 597; DB 5; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.4e-53;
Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0

Qy 1 LLTEEVRLYSCTPRNFSYSIREELKRTDTIFWPGLLWKRGGNCACLNQNCEQCVP5 60
Db 240 LLTEEVRLYSCTPRNFSYSIREELKRTDTIFWPGLLWKRGGNCACLNQNCEQCVP5 299

Query Match 100.0% Score 597; DB 5; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.4e-53;
Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0

Qy 61 KVTKKYHVELQLRPTKGVRGLHKSLSLTDVALEHHBECDCVCRGSGTGG 106
Db 300 KVTKKYHVELQLRPTKGVRGLHKSLSLTDVALEHHBECDCVCRGSGTGG 345

RESULT 4
US-09-978-544A-488
; Sequence 488, Application US/09978544A
; GENERAL INFORMATION:
; APPLICANT: Ashebenazi, Avi
; APPLICANT: Baker, Kevin P.
; APPLICANT: Boeslein, David
; APPLICANT: Denoyers, Luc
; APPLICANT: Eaton, Dan
; APPLICANT: Ferrara, Napoleon
; APPLICANT: Flivaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Geber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Goodowski, Paul J.
; APPLICANT: Grimaldi, J. Christopher
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillian, Kenneth J.
; APPLICANT: Klijavin, Ivar J.
; APPLICANT: Kuo, Sophia S.
; APPLICANT: Nair, Mary A.
; APPLICANT: Pad, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Sheldon, David L.
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tunas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William L.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; ACIDS Encoding the Same
; FILE REFERENCE: P2630P1C13
; CURRENT APPLICATION NUMBER: US/09/978-544A
; CURRENT FILING DATE: 2002-03-19
; PRIOR APPLICATION NUMBER: 09/918585
; PRIOR FILING DATE: 2001-07-30
; PRIOR APPLICATION NUMBER: 60/062250
; PRIOR FILING DATE: 1997-10-17
; PRIOR APPLICATION NUMBER: 60/064249
; PRIOR FILING DATE: 1997-11-03
; PRIOR APPLICATION NUMBER: 60/065311

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Query Match 100.0%; Score 597; DB 5; Length: 345;
 Best Local Similarity 100.0%; Pred. No. 1.4e-33; Gaps 0;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LLEEVRLYSCPRNFSVIRSEELKRTDTIWPGLLVKRGGNCACLNICNECOCPVS 60
 Db 240 LLEEVRLYSCPRNFSVIRSEELKRTDTIWPGLLVKRGGNCACLNICNECOCPVS 299

Qy 61 KVTKKYHEVLQLRPKTGVRLHKSLTDVALHEECDCYCVRSTGG 106
 Db 300 KVTKKYHEVLQLRPKTGVRLHKSLTDVALHEECDCYCVRSTGG 345

RESULT 5

US-09-681A-48B
 ; Sequence 488, Application US/09978681A
 ; GENERAL INFORMATION:
 ; APPLICANT: Aszkenazi, Avi
 ; APPLICANT: Baker, Kevin P.
 ; APPLICANT: Botstein, David
 ; APPLICANT: Desnoyers, Luc
 ; APPLICANT: Eaton, Dan
 ; APPLICANT: Ferraro, Napoleon
 ; APPLICANT: Filvaroff, Ellen
 ; APPLICANT: Fong, Sherman
 ; APPLICANT: Ge, Wei-Qiang
 ; APPLICANT: Gerber, Hanspeter
 ; APPLICANT: Gerritsen, Mary E.
 ; APPLICANT: Goddard, Audrey
 ; APPLICANT: Godowski, Paul J.
 ; APPLICANT: Grimaldi, J. Christopher
 ; APPLICANT: Gurney, Austin L.
 ; APPLICANT: Hillian, Kenneth J.
 ; APPLICANT: Klijavin, Ivar J.
 ; APPLICANT: Kuo, Sophia S.
 ; APPLICANT: Napier, Mary A.
 ; APPLICANT: Pan, James
 ; APPLICANT: Paoni, Nicholas F.
 ; APPLICANT: Roy, Margaret Ann
 ; APPLICANT: Shelton, David L.
 ; APPLICANT: Stewart, Timothy A.
 ; APPLICANT: Tunas, Daniel
 ; APPLICANT: Williams, P. Mickey
 ; APPLICANT: Wood, William T.
 ; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
 ; TITLE OF INVENTION: Acids Encoding the Same
 ; FILE REFERENCE: P2630PIC1
 ; CURRENT APPLICATION NUMBER: US/09/978,681A
 ; CURRENT FILING DATE: 2002-03-19
 ; PRIOR APPLICATION NUMBER: 09/918505
 ; PRIOR FILING DATE: 2001-07-30
 ; PRIOR APPLICATION NUMBER: 60/062250
 ; PRIOR FILING DATE: 1997-10-17
 ; PRIOR APPLICATION NUMBER: 60/064249
 ; PRIOR FILING DATE: 1997-11-03
 ; PRIOR APPLICATION NUMBER: 60/065311
 ; PRIOR FILING DATE: 1997-11-13
 ; PRIOR APPLICATION NUMBER: 60/066364
 ; PRIOR FILING DATE: 1997-11-21

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; PRIOR APPLICATION NUMBER: 60/081838 ; PRIOR APPLICATION NUMBER: 60/085579
; PRIOR FILING DATE: 1998-04-15 ; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: 60/082568 ; PRIOR APPLICATION NUMBER: 60/085580
; PRIOR FILING DATE: 1998-04-21 ; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: 60/082569 ; PRIOR APPLICATION NUMBER: 60/085573
; PRIOR FILING DATE: 1998-04-21 ; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: 60/082704 ; PRIOR APPLICATION NUMBER: 60/085704
; PRIOR FILING DATE: 1998-04-22 ; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: 60/082804 ; PRIOR APPLICATION NUMBER: 60/085697
; PRIOR FILING DATE: 1998-04-22 ; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: 60/082797 ; Query Match 100.0%; Score 597; DB 5; Length 345;
; PRIOR FILING DATE: 1998-04-22 ; Best Local Similarity 100.0%; Pred. No. 1.4e-53;
; PRIOR APPLICATION NUMBER: 60/082700 ; Mismatches 0; Indels 0; Gaps 0;
; PRIOR FILING DATE: 1998-04-22 ; Matches 106; Conservative 0;
; PRIOR APPLICATION NUMBER: 60/083336 ; PRIOR APPLICATION NUMBER: 60/083322
; PRIOR FILING DATE: 1998-04-27 ; PRIOR FILING DATE: 1998-04-28
; PRIOR APPLICATION NUMBER: 60/083392 ; PRIOR APPLICATION NUMBER: 60/083495
; PRIOR FILING DATE: 1998-04-29 ; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083496 ; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083499 ; PRIOR FILING DATE: 1998-04-29
; PRIOR FILING DATE: 1998-04-29 ; Sequence 488, Application US/09978757A
; PRIOR APPLICATION NUMBER: 60/083545 ; GENERAL INFORMATION:
; PRIOR FILING DATE: 1998-04-29 ; APPLICANT: Ashkenazi, Avi
; PRIOR APPLICATION NUMBER: 60/083554 ; APPLICANT: Baker, Kevin P.
; PRIOR FILING DATE: 1998-04-29 ; APPLICANT: Botstein, David
; PRIOR APPLICATION NUMBER: 60/083558 ; APPLICANT: Desnoyers, Luc
; PRIOR FILING DATE: 1998-04-29 ; APPLICANT: Eaton, Dan
; PRIOR FILING DATE: 1998-04-29 ; APPLICANT: Ferrara, Napoleon
; PRIOR APPLICATION NUMBER: 60/083559 ; APPLICANT: Filvaroff, Ellen
; PRIOR FILING DATE: 1998-04-29 ; APPLICANT: Fong, Sherman
; PRIOR APPLICATION NUMBER: 60/083500 ; APPLICANT: Gao, Wei-Qiang
; PRIOR FILING DATE: 1998-04-29 ; APPLICANT: Gerber, Hanspeter
; PRIOR APPLICATION NUMBER: 60/083552 ; APPLICANT: Gerritsen, Mary E.
; PRIOR FILING DATE: 1998-04-30 ; APPLICANT: Goddard, Audrey
; PRIOR APPLICATION NUMBER: 60/084366 ; APPLICANT: Godowski, Paul J.
; PRIOR FILING DATE: 1998-05-05 ; APPLICANT: Grimaldi, J. Christopher
; PRIOR APPLICATION NUMBER: 60/084414 ; APPLICANT: Gurney, Austin L.
; PRIOR FILING DATE: 1998-05-06 ; APPLICANT: Hillan, Kenneth J.
; PRIOR APPLICATION NUMBER: 60/084441 ; APPLICANT: Kjavin, Ivar J.
; PRIOR FILING DATE: 1998-05-07 ; APPLICANT: Kuo, Sophia S.
; PRIOR APPLICATION NUMBER: 60/084637 ; APPLICANT: Napier, Mary A.
; PRIOR FILING DATE: 1998-05-07 ; APPLICANT: Pan, James
; PRIOR APPLICATION NUMBER: 60/084639 ; APPLICANT: Paoni, Nicholas F.
; PRIOR FILING DATE: 1998-05-07 ; APPLICANT: Roy, Margaret Ann
; PRIOR APPLICATION NUMBER: 60/084600 ; APPLICANT: Shelton, David L.
; PRIOR FILING DATE: 1998-05-07 ; APPLICANT: Stewart, Timothy A.
; PRIOR APPLICATION NUMBER: 60/084627 ; APPLICANT: Tumas, Daniel
; PRIOR FILING DATE: 1998-05-07 ; APPLICANT: Williams, P. Mickey
; PRIOR APPLICATION NUMBER: 60/084643 ; APPLICANT: Wood, William I.
; PRIOR FILING DATE: 1998-05-07 ; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; PRIOR APPLICATION NUMBER: 60/085339 ; ACIDS Encoding the Same
; PRIOR FILING DATE: 1998-05-13 ; FILE REFERENCE: P26-0PIC26
; PRIOR APPLICATION NUMBER: 60/085338 ; CURRENT APPLICATION NUMBER: US/09/978,757A
; PRIOR FILING DATE: 1998-05-13 ; CURRENT FILING DATE: 2002-03-19
; PRIOR APPLICATION NUMBER: 60/085323 ; PRIOR APPLICATION NUMBER: 09/918585
; PRIOR FILING DATE: 1998-05-13 ; PRIOR FILING DATE: 2001-07-30
; PRIOR APPLICATION NUMBER: 60/062250 ; PRIOR APPLICATION NUMBER: 60/062250
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; PRIOR APPLICATION NUMBER: 60/066364 ; PRIOR FILING DATE: 1997-11-21
; PRIOR APPLICATION NUMBER: 60/077450 ; PRIOR APPLICATION NUMBER: 60/077450
; PRIOR FILING DATE: 1998-03-10 ; PRIOR FILING DATE: 1998-03-10
; PRIOR APPLICATION NUMBER: 60/077632 ; PRIOR APPLICATION NUMBER: 60/077632

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PRIOR FILING DATE: 1998-03-11
PRIOR APPLICATION NUMBER: 60/077791
PRIOR FILING DATE: 1998-03-12
PRIOR APPLICATION NUMBER: 60/078004
PRIOR FILING DATE: 1998-03-13
PRIOR APPLICATION NUMBER: 60/078886
PRIOR FILING DATE: 1998-03-20
PRIOR APPLICATION NUMBER: 60/078936
PRIOR FILING DATE: 1998-03-20
PRIOR APPLICATION NUMBER: 60/078910
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PRIOR FILING DATE: 1998-03-26
PRIOR APPLICATION NUMBER: 60/079664
PRIOR FILING DATE: 1998-03-27
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PRIOR APPLICATION NUMBER: 60/079663
PRIOR FILING DATE: 1998-03-27
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PRIOR FILING DATE: 1998-03-27
PRIOR APPLICATION NUMBER: 60/079920
PRIOR FILING DATE: 1998-03-30
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PRIOR FILING DATE: 1998-03-30
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PRIOR APPLICATION NUMBER: 60/081819
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; PRIOR FILING DATE: 1998-05-15 ; PRIOR APPLICATION NUMBER: 60/077649
; PRIOR FILING DATE: 1998-03-11 ; PRIOR APPLICATION NUMBER: 60/077791
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; PRIOR FILING DATE: 1998-03-31 ; PRIOR APPLICATION NUMBER: 60/080165
; PRIOR FILING DATE: 1998-03-31 ; PRIOR APPLICATION NUMBER: 60/080194
; PRIOR FILING DATE: 1998-03-31 ; PRIOR APPLICATION NUMBER: 60/080327
; PRIOR FILING DATE: 1998-04-01 ; PRIOR APPLICATION NUMBER: 60/080328
; PRIOR FILING DATE: 1998-04-01 ; PRIOR APPLICATION NUMBER: 60/080333
; PRIOR FILING DATE: 1998-04-01 ; PRIOR APPLICATION NUMBER: 60/080334
; PRIOR FILING DATE: 1998-04-01 ; PRIOR APPLICATION NUMBER: 60/081195
; PRIOR FILING DATE: 1998-04-08 ; PRIOR APPLICATION NUMBER: 60/081203
; PRIOR FILING DATE: 1998-04-09 ; PRIOR APPLICATION NUMBER: 60/081229
; PRIOR FILING DATE: 1998-04-09 ; PRIOR APPLICATION NUMBER: 60/081819
; PRIOR FILING DATE: 1998-04-15 ; PRIOR APPLICATION NUMBER: 60/081955
; PRIOR FILING DATE: 1998-04-15 ; PRIOR APPLICATION NUMBER: 60/081952
; PRIOR FILING DATE: 1998-04-15 ; PRIOR APPLICATION NUMBER: 60/081838
; PRIOR FILING DATE: 1998-04-15 ; PRIOR APPLICATION NUMBER: 60/082568
; PRIOR FILING DATE: 1998-04-21 ; PRIOR APPLICATION NUMBER: 60/082569
; PRIOR FILING DATE: 1998-03-11 ; PRIOR APPLICATION NUMBER: 60/082569

Query Match          100.0%; Score 597; DB 5; Length 345;
Best Local Similarity 100.0%; P-Ref. No. 1.4e-53;
Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy   1 LITTEEVRLYSCTPRNFVSIREEIKRTDTIFPGCLLYKRCGGNCACCLHNCNECCVPS 60
Db  240 LITTEEVRLYSCTPRNFVSIREEIKRTDTIFPGCLLYKRCGGNCACCLHNCNECCVPS 299

Qy   61 KVTKKYHEVLQLRPTKGYRLHKS LTDVALEHEECDCVCRGSTGG 106
Db  300 KVTKKYHEVLQLRPTKGYRLHKS LTDVALEHEECDCVCRGSTGG 345

RESULT 7
US-09-978-564A-48B
; Sequence 48B, Application US/09978564A
; GENERAL INFORMATION:
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Baker, Kevin P.
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Bacon, Dan
; APPLICANT: Ferrara, Napoleon
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey E.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, J. Christopher
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillian, Kenneth J.
; APPLICANT: Klijavin, Ivar J.
; APPLICANT: Kuo, Sophia S.
; APPLICANT: Napier, Mary A.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Shelton, David L.
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tunas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William T.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: P2650P1C25
; CURRENT APPLICATION NUMBER: US/09/978,564A
; CURRENT FILING DATE: 2001-10-16
; PRIOR APPLICATION NUMBER: 09/918585
; PRIOR FILING DATE: 2001-07-30
; PRIOR APPLICATION NUMBER: 60/062250
; PRIOR FILING DATE: 1997-10-17
; PRIOR APPLICATION NUMBER: 60/064249
; PRIOR FILING DATE: 1997-11-03
; PRIOR APPLICATION NUMBER: 60/065311
; PRIOR FILING DATE: 1997-11-13
; PRIOR APPLICATION NUMBER: 60/066364
; PRIOR FILING DATE: 1997-11-21
; PRIOR APPLICATION NUMBER: 60/077450
; PRIOR FILING DATE: 1998-03-10
; PRIOR APPLICATION NUMBER: 60/077632
; PRIOR FILING DATE: 1998-03-11
; PRIOR APPLICATION NUMBER: 60/077641
; PRIOR FILING DATE: 1998-03-11

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; PRIOR FILING DATE: 1998-04-21
; PRIOR APPLICATION NUMBER: 60/082704
; PRIOR FILING DATE: 1998-04-22
; PRIOR APPLICATION NUMBER: 60/082804
; PRIOR FILING DATE: 1998-04-22
; PRIOR APPLICATION NUMBER: 60/082700
; PRIOR FILING DATE: 1998-04-22
; PRIOR APPLICATION NUMBER: 60/082797
; PRIOR FILING DATE: 1998-04-22
; PRIOR APPLICATION NUMBER: 60/082796
; PRIOR FILING DATE: 1998-04-23
; PRIOR APPLICATION NUMBER: 60/083336
; PRIOR FILING DATE: 1998-04-27
; PRIOR APPLICATION NUMBER: 60/083322
; PRIOR FILING DATE: 1998-04-28
; PRIOR APPLICATION NUMBER: 60/083392
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083495
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083496
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083499
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083545
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083554
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083558
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083559
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083500
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/083742
; PRIOR FILING DATE: 1998-04-30
; PRIOR APPLICATION NUMBER: 60/084366
; PRIOR FILING DATE: 1998-05-05
; PRIOR APPLICATION NUMBER: 60/084414
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/084441
; PRIOR FILING DATE: 1998-05-06
; PRIOR APPLICATION NUMBER: 60/084437
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/084639
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/084640
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/084598
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/084600
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/084627
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/084643
; PRIOR FILING DATE: 1998-05-07
; PRIOR APPLICATION NUMBER: 60/085339
; PRIOR FILING DATE: 1998-05-13
; PRIOR APPLICATION NUMBER: 60/085338
; PRIOR FILING DATE: 1998-05-13
; PRIOR APPLICATION NUMBER: 60/085323
; PRIOR FILING DATE: 1998-05-13
; PRIOR APPLICATION NUMBER: 60/085582
; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: 60/085700
; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: 60/085689
; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: 60/085579
; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: 60/085580
; PRIOR APPLICATION NUMBER: 60/085573
; PRIOR FILING DATE: 1998-05-15

; PRIOR APPLICATION NUMBER: 60/085704
; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: 60/085697
; PRIOR FILING DATE: 1998-05-15

Query Match Score 597; DB 5; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.e-53;
Matches 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LLTEEVRLYSCTPRNFSVSIRELKRDTIFWPGCLLVKRGGNCACLHCNECQCVPS 60
Db 240 LLTEEVRLYSCTPRNFSVSIRELKRDTIFWPGCLLVKRGGNCACLHCNECQCVPS 299

Qy 61 KVTKKHEVQLRPTKGVRGLHKSLTDVALEHHEECDCVCRGSTGG 106
Db 300 KVTKKHEVQLRPTKGVRGLHKSLTDVALEHHEECDCVCRGSTGG 345

RESULT 8
US-09-999-831A-488
; Sequence 488, Application US/09999831A

GENERAL INFORMATION:
; GENERAL INFORMATION:
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Baker Kevin P.
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan
; APPLICANT: Ferrara, Napoleon
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrie
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gimaldi, J. Christopher *
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillian, Kenneth J.
; APPLICANT: Kijavim, Irvar J.
; APPLICANT: Kuo, Sophia S.
; APPLICANT: Napier, Mary A.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Shelton, David L.
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William I.
; APPLICANT: Yau, Michael
; APPLICANT: Zeng, Ming

TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
FILE REFERENCE: P230301PC68
CURRENT APPLICATION NUMBER: US/09/999-831A
CURRENT FILING DATE: 2002-03-25
NUMBER OF SEQ ID NOS: 624
; Prior Application removed - see file Wrapper or Palm
SEQ ID NO 488
LENGTH: 345
; TYPE: PR
; ORGANISM: Homo sapiens
US-09-999-831A-488

Query Match Score 597; DB 5; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.e-53;
Matches 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LLTEEVRLYSCTPRNFSVSIRELKRDTIFWPGCLLVKRGGNCACLHCNECQCVPS 60
Db 240 LLTEEVRLYSCTPRNFSVSIRELKRDTIFWPGCLLVKRGGNCACLHCNECQCVPS 299

Qy 61 KVTKKHEVQLRPTKGVRGLHKSLTDVALEHHEECDCVCRGSTGG 106

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Db 300 KVTKKYHEVLQLRPKTGYRGLHKSLSLTDALEHHECDCVCRGSTGG 345

RESULT 9
US-09-564-595D-33

; Sequence 33, Application US/09564595D

; GENERAL INFORMATION:

; APPLICANT: Gilbert, Teresa

; HAR, Charles E.

; PRIORITY: Sheppard, Paul O.

; TITLE OF INVENTION: GROWTH FACTOR HOMOLOG ZVEGF4

; FILE REFERENCE: 99-19

; CURRENT FILING DATE: 2000-05-03

; PRIOR APPLICATION NUMBER: US 09/564,595D

; PRIOR FILING DATE: 1999-05-03

; PRIOR APPLICATION NUMBER: US 60/164,463

; PRIOR FILING DATE: 199-11-10

; PRIOR APPLICATION NUMBER: US 60/180,169

; PRIOR FILING DATE: 2000-02-04

; NUMBER OF SEQ ID NOS: 57

; SOFTWARE: Fastseq for Windows Version 4.0

; SEQ ID NO: 33

; LENGTH: 345

; TYPE: PRT

; ORGANISM: Homo sapiens

US-09-564-595D-33

Query Match 100.0%; Score 597; DB 5; Length 345;
Best Local Similarity 100.0%; Pred. No. 1 4e-53;
Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;Qy 1 LITEEVRLYSCTPRNFSVSIREEKLRTDTIFWPGCLIVKRCGGNCACCLHNCNECQCVPS 60
Db 240 LITEEVRLYSCTPRNFSVSIREEKLRTDTIFWPGCLIVKRCGGNCACCLHNCNECQCVPS 299
Qy 61 KVTKKYHEVLQLRPKTGYRGLHKSLSLTDALEHHECDCVCRGSTGG 106
Db 300 KVTKKYHEVLQLRPKTGYRGLHKSLSLTDALEHHECDCVCRGSTGG 345RESULT 10
US-09-999-829A-488

; Sequence 488, Application US/0999829A

; GENERAL INFORMATION:

; APPLICANT: Ashkenazi, Avi

; APPLICANT: Baker, Kevin P.

; APPLICANT: Botstein, David

; APPLICANT: Desnoyers, Luc

; APPLICANT: Eaton, Dan

; APPLICANT: Ferrara, Napoleon

; APPLICANT: Filvaroff, Ellen

; APPLICANT: Fong, Sherman

; APPLICANT: Gao, Wei-Qiang

; APPLICANT: Gerber, Hanspeter

; APPLICANT: Gerritsen, Mary A.

; APPLICANT: Goddard, Audrey

; APPLICANT: Godowski, Paul J.

; APPLICANT: Grimaldi, J. Christopher

; APPLICANT: Gurney, Austin L.

; APPLICANT: Hillian, Kenneth J.

; APPLICANT: Kijaviv, Ivor J.

; APPLICANT: Kuo, Sophia S.

; APPLICANT: Napier, Mary A.

; APPLICANT: Pan, James

; APPLICANT: Paoni, Nicholas F.

; APPLICANT: Roy, Margaret Ann

; APPLICANT: Shelton, David L.

; APPLICANT: Stewart, Timothy A.

; APPLICANT: Tumas, Daniel

; APPLICANT: Williams, P. Mickey

; APPLICANT: Wood, William I.

Query Match 100.0%; Score 597; DB 5; Length 345;

Best Local Similarity 100.0%; Pred. No. 1.4e-53; Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

RESULT 12 US-10-013-921A-488
 Sequence 488, Application US/10013921A
 GENERAL INFORMATION:
 ; APPLICANT: Asikenazi, Avi
 ; APPLICANT: Bakr, Kevin P.
 ; APPLICANT: Botstein, David
 ; APPLICANT: Desnoyers, Luc
 ; APPLICANT: Eaton, Dan
 ; APPLICANT: Ferrar, Napoleon
 ; APPLICANT: Filvaroff, Ellen
 ; APPLICANT: Fong, Sherman
 ; APPLICANT: Gao, Wei-Qiang
 ; APPLICANT: Gerber, Hanspeter
 ; APPLICANT: Gerritsen, Mary E.
 ; APPLICANT: Godowski, Paul J.
 ; APPLICANT: Grimaldi, J. Christopher
 ; APPLICANT: Gurney, Austin L.
 ; APPLICANT: Hillan, Kenneth J.
 ; APPLICANT: Klijavin, Ivar J.
 ; APPLICANT: Kuo, Sophia S.
 ; APPLICANT: Napier, Mary A.
 ; APPLICANT: Pan, James
 ; APPLICANT: Paoni, Nicholas F.
 ; APPLICANT: Roy, Margaret Ann
 ; APPLICANT: Shelton, David L.
 ; APPLICANT: Stewart, Timothy A.
 ; APPLICANT: Tumas, Daniel
 ; APPLICANT: Williams, P. Mickey
 ; APPLICANT: Wood, William I.
 ; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic Acid Reference: P235OPIC84
 ; CURRENT APPLICATION NUMBER: US/10/013 921A
 ; CURRENT FILING DATE: 2002-03-19
 ; PRIOR APPLICATION NUMBER: 09/918585
 ; PRIOR FILING DATE: 2001-07-30
 ; PRIOR APPLICATION NUMBER: 60/062250
 ; PRIOR FILING DATE: 1997-10-17
 ; PRIOR APPLICATION NUMBER: 60/064249
 ; PRIOR FILING DATE: 1997-11-03
 ; PRIOR APPLICATION NUMBER: 60/065311
 ; PRIOR FILING DATE: 1997-11-13
 ; PRIOR APPLICATION NUMBER: 60/066364
 ; PRIOR FILING DATE: 1997-11-21
 ; PRIOR APPLICATION NUMBER: 60/067450
 ; PRIOR FILING DATE: 1998-03-10
 ; PRIOR APPLICATION NUMBER: 60/077632
 ; PRIOR FILING DATE: 1998-03-11
 ; PRIOR APPLICATION NUMBER: 60/077641
 ; PRIOR FILING DATE: 1998-03-11
 ; PRIOR APPLICATION NUMBER: 60/077649
 ; PRIOR FILING DATE: 1998-03-11
 ; PRIOR APPLICATION NUMBER: 60/077791
 ; PRIOR FILING DATE: 1998-03-12
 ; PRIOR APPLICATION NUMBER: 60/078004
 ; PRIOR FILING DATE: 1998-03-13
 ; PRIOR APPLICATION NUMBER: 60/078886
 ; PRIOR FILING DATE: 1998-03-20
 ; PRIOR APPLICATION NUMBER: 60/078936

PRIOR FILING DATE: 1998-03-20
 PRIOR APPLICATION NUMBER: 60/078910
 PRIOR FILING DATE: 1998-03-20
 PRIOR APPLICATION NUMBER: 60/079399
 PRIOR FILING DATE: 1998-03-20
 PRIOR APPLICATION NUMBER: 60/079294
 PRIOR FILING DATE: 1998-03-25
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 PRIOR FILING DATE: 1998-03-26
 PRIOR APPLICATION NUMBER: 60/079664
 PRIOR FILING DATE: 1998-03-27
 PRIOR APPLICATION NUMBER: 60/079663
 PRIOR FILING DATE: 1998-03-27
 PRIOR APPLICATION NUMBER: 60/079728
 PRIOR FILING DATE: 1998-03-27
 PRIOR APPLICATION NUMBER: 60/079786
 PRIOR FILING DATE: 1998-03-27
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 PRIOR FILING DATE: 1998-03-30
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 PRIOR FILING DATE: 1998-04-15
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 PRIOR FILING DATE: 1998-04-21
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 PRIOR FILING DATE: 1998-04-22
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 PRIOR FILING DATE: 1998-04-22
 PRIOR APPLICATION NUMBER: 60/082800
 PRIOR FILING DATE: 1998-04-22
 PRIOR APPLICATION NUMBER: 60/082797
 PRIOR FILING DATE: 1998-04-22

PRIOR APPLICATION NUMBER: 60/082796
 PRIOR FILING DATE: 1998-04-23
 PRIOR APPLICATION NUMBER: 60/083336
 PRIOR FILING DATE: 1998-04-27
 PRIOR APPLICATION NUMBER: 60/083322
 PRIOR FILING DATE: 1998-04-28
 PRIOR APPLICATION NUMBER: 60/083392
 PRIOR FILING DATE: 1998-04-29
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 PRIOR APPLICATION NUMBER: 60/083742
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 PRIOR FILING DATE: 1998-05-07
 PRIOR APPLICATION NUMBER: 60/084640
 PRIOR FILING DATE: 1998-05-07
 PRIOR APPLICATION NUMBER: 60/084637
 PRIOR FILING DATE: 1998-05-07
 PRIOR APPLICATION NUMBER: 60/084600
 PRIOR FILING DATE: 1998-05-07
 PRIOR APPLICATION NUMBER: 60/084627
 PRIOR FILING DATE: 1998-05-07
 PRIOR APPLICATION NUMBER: 60/084643
 PRIOR FILING DATE: 1998-05-07
 PRIOR APPLICATION NUMBER: 60/085339
 PRIOR FILING DATE: 1998-05-13
 PRIOR APPLICATION NUMBER: 60/085338
 PRIOR FILING DATE: 1998-05-13
 PRIOR APPLICATION NUMBER: 60/085323
 PRIOR FILING DATE: 1998-05-13
 PRIOR APPLICATION NUMBER: 60/085582
 PRIOR FILING DATE: 1998-05-15
 PRIOR APPLICATION NUMBER: 60/085580
 PRIOR FILING DATE: 1998-05-15
 PRIOR APPLICATION NUMBER: 60/085573
 PRIOR FILING DATE: 1998-05-15
 PRIOR APPLICATION NUMBER: 60/085579
 PRIOR FILING DATE: 1998-05-15
 PRIOR APPLICATION NUMBER: 60/085704
 PRIOR FILING DATE: 1998-05-15
 PRIOR APPLICATION NUMBER: 60/085697
 PRIOR FILING DATE: 1998-05-15

QY 1 LLTEEVRLYSCTPRNSVSYIREBLKRDTTIFWPGCLLYKRCGGNCACCLHNCNECQCVPS 60
 Db 240 LLTEEVRLYSCTPRNSVSYIREBLKRDTTIFWPGCLLYKRCGGNCACCLHNCNECQCVPS 299

QY 61 KVTKKYHEVLQLRPTKGYRGLHKSLTDVALEHHECDVCVRGSTGG 106
 Db 300 KVTKKYHEVLQLRPTKGYRGLHKSLTDVALEHHECDVCVRGSTGG 345

RESULT 13

US-10-013-929A-488
 Sequence 488, Application US/10013929A
 GENERAL INFORMATION:
 APPLICANT: Ashkenazi, Avi
 APPLICANT: Baker, Kevin P.
 APPLICANT: Botstein, David
 APPLICANT: Desnoyers, Luc
 APPLICANT: Eaton, Dan
 APPLICANT: Ferrara, Napoleon
 APPLICANT: Filvaroff, Ellen
 APPLICANT: Fong, Sherman
 APPLICANT: Gao, Wei-Qiang
 APPLICANT: Gerber, Hanspeter
 APPLICANT: Gerritsen, Mary E.
 APPLICANT: Goddard, Audrey
 APPLICANT: Godowski, Paul J.
 APPLICANT: Grimaldi, J. Christopher
 APPLICANT: Gurney, Austin L.
 APPLICANT: Hillian, Kenneth J.
 APPLICANT: Kijavin, Ivar J.
 APPLICANT: Kuo, Sophia S.
 APPLICANT: Napier, Mary A.
 APPLICANT: Pan, James
 APPLICANT: Paoni, Nicholas F.
 APPLICANT: Roy, Margaret Ann
 APPLICANT: Shelton, David L.
 APPLICANT: Stewart, Timothy A.
 APPLICANT: Tumas, Daniel
 APPLICANT: Williams, P. Mickey
 APPLICANT: Wood, William I.

TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic Acids Encoding the Same
 FILE REFERENCE: P2630PC89
 CURRENT APPLICATION NUMBER: US/10/013,929A
 CURRENT FILING DATE: 2002-03-19

PRIOR APPLICATION NUMBER: 09/918585
 PRIOR FILING DATE: 2001-07-30
 PRIOR APPLICATION NUMBER: 60/062250
 PRIOR FILING DATE: 1997-10-17
 PRIOR APPLICATION NUMBER: 60/064249
 PRIOR FILING DATE: 1997-11-03
 PRIOR APPLICATION NUMBER: 60/065311
 PRIOR FILING DATE: 1997-11-13
 PRIOR APPLICATION NUMBER: 60/066364
 PRIOR FILING DATE: 1997-11-21
 PRIOR APPLICATION NUMBER: 60/077450
 PRIOR FILING DATE: 1998-03-10
 PRIOR APPLICATION NUMBER: 60/077632
 PRIOR FILING DATE: 1998-03-11
 PRIOR APPLICATION NUMBER: 60/077641
 PRIOR FILING DATE: 1998-03-11
 PRIOR APPLICATION NUMBER: 60/077649
 PRIOR FILING DATE: 1998-03-11
 PRIOR APPLICATION NUMBER: 60/077791
 PRIOR FILING DATE: 1998-03-12
 PRIOR APPLICATION NUMBER: 60/078004
 PRIOR FILING DATE: 1998-03-13
 PRIOR APPLICATION NUMBER: 60/078886
 PRIOR FILING DATE: 1998-03-20
 PRIOR APPLICATION NUMBER: 60/078836
 PRIOR FILING DATE: 1998-03-20
 PRIOR APPLICATION NUMBER: 60/078910
 PRIOR FILING DATE: 1998-03-20

Query Match 100.0%; Score 597; DB 6;
 Best Local Similarity 100.0%; Pred. No. 1.4e-51;
 Matches 106; Conservative 0; Mismatches 0; Gaps 0;

; PRIOR APPLICATION NUMBER: 60/078939
; PRIOR FILING DATE: 1998-03-20
; PRIOR APPLICATION NUMBER: 60/079294
; PRIOR FILING DATE: 1998-03-25
; PRIOR APPLICATION NUMBER: 60/079656
; PRIOR FILING DATE: 1998-03-26
; PRIOR APPLICATION NUMBER: 60/079664
; PRIOR FILING DATE: 1998-03-27
; PRIOR APPLICATION NUMBER: 60/079689
; PRIOR FILING DATE: 1998-03-27
; PRIOR APPLICATION NUMBER: 60/079663
; PRIOR FILING DATE: 1998-03-27
; PRIOR APPLICATION NUMBER: 60/079728
; PRIOR FILING DATE: 1998-03-27
; PRIOR APPLICATION NUMBER: 60/079786
; PRIOR FILING DATE: 1998-03-27
; PRIOR APPLICATION NUMBER: 60/079920
; PRIOR FILING DATE: 1998-03-30
; PRIOR APPLICATION NUMBER: 60/079923
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Query Match	100.0%	Score 597;	DB 6;	Length 345;	
Best Local Similarity	100.0%	Pred. No.	1.4e-53;		
Matches	106;	Mismatches	0;	Indels	0;
Y	1	LITEEVRLYSCTPRNFSVIREELKRTDTIWFPGCLLKVRCGGNCACCLHNNECOQVPS	60		
b	240	LITEEVRLYSCTPRNFSVIREELKRTDTIWFPGCLLKVRCGGNCACCLHNNECOQVPS	299		

Qy 61 KVTKKYHEVQLRPTKTVGRGLHKSUTDVALEHHEECDVCRGSTGG 106
 Db 300 KVTKKYHEVQLRPTKTVGRGLHKSUTDVALEHHEECDVCRGSTGG 345

RESULT 14

GENERAL INFORMATION:

SEQUENCE 488, Application US/10013918A

APPLICANT: Ashkenazi, Avi

APPLICANT: Baker, Kevin P.

APPLICANT: Botstein, David

APPLICANT: Desnoyers, Luc

APPLICANT: Eaton, Dan

APPLICANT: Ferrara, Napoleon

APPLICANT: Flivavoff, Eileen

APPLICANT: Fong, Sherman

APPLICANT: Gao, Wei-Qiang

APPLICANT: Gerber, Hanspeter

APPLICANT: Gerritsen, Mary E.

APPLICANT: Goddard, Audrey

APPLICANT: Godowski, Paul J.

APPLICANT: Grimaldi, J. Christopher

APPLICANT: Gurney, Austin L.

APPLICANT: Hillan, Kenneth J.

APPLICANT: Klijavin, Ivar J.

APPLICANT: Kuo, Sophia S.

APPLICANT: Napier, Mary A.

APPLICANT: Pan, James

APPLICANT: Paoni, Nicholas F.

APPLICANT: Roy, Margaret Ann

APPLICANT: Sheltton, David L.

APPLICANT: Stewart, Timothy A.

APPLICANT: Williams, P. Mickey

APPLICANT: Wood, William J.

TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic Acid Encoding the Same

FILE REFERENCE: P2630P1C77

CURRENT APPLICATION NUMBER: US/10/013,918A

CURRENT FILING DATE: 2002-03-25

PRIOR APPLICATION NUMBER: 09/918585

PRIOR FILING DATE: 2001-07-30

PRIOR APPLICATION NUMBER: 60/062250

PRIOR FILING DATE: 1997-10-17

PRIOR APPLICATION NUMBER: 60/064249

PRIOR FILING DATE: 1997-11-03

PRIOR APPLICATION NUMBER: 60/065311

PRIOR FILING DATE: 1997-11-13

PRIOR APPLICATION NUMBER: 60/066364

PRIOR FILING DATE: 1998-01-21

PRIOR APPLICATION NUMBER: 60/077450

PRIOR FILING DATE: 1998-03-10

PRIOR APPLICATION NUMBER: 60/077632

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PRIOR APPLICATION NUMBER: 60/077649

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; PRIOR APPLICATION NUMBER: 60/085697
; PRIOR FILING DATE: 1998-05-15

Query Match 100.0%; Score 597; DB 6; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.4e-53; Indels 0; Gaps 0;
Matches 106; Conservative 0; Mismatches 0;

Qy 1 LLETEYRLYSTPRNFSVSTREELKRTDTIWFPGCLLVRGGNGACCLNCNECQCVPS 60
Db 240 LLETEYRLYSTPRNFSVSTREELKRTDTIWFPGCLLVRGGNGACCLNCNECQCVPS 299
Qy 61 KVTKKYHEVLQRPKTGVRGSHKSUTDVALEHHERCDCVCRGSTGG 106
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Db 300 KVTKKYHEVLQLRPXTGVRGLHKSLTDVALEHHBECDCVCRGSTGG 345
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; Sequence 488, Application US/10017082A
; GENERAL INFORMATION:
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Baker, Kevin P.
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan
; APPLICANT: Ferrara, Napoleon
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, J. Christopher
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillian, Kenneth J.
; APPLICANT: Kliavkin, Ivar J.
; APPLICANT: Kuo, Sophia S.
; APPLICANT: Napier, Mary A.
; APPLICANT: Pan, James
; APPLICANT: Paoli, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Shelton, David L.
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William L.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; ACIDS Encoding the Same
; FILE REFERENCE: P263091C1
; CURRENT APPLICATION NUMBER: US/10/017-082A
; CURRENT FILING DATE: 2002-03-25
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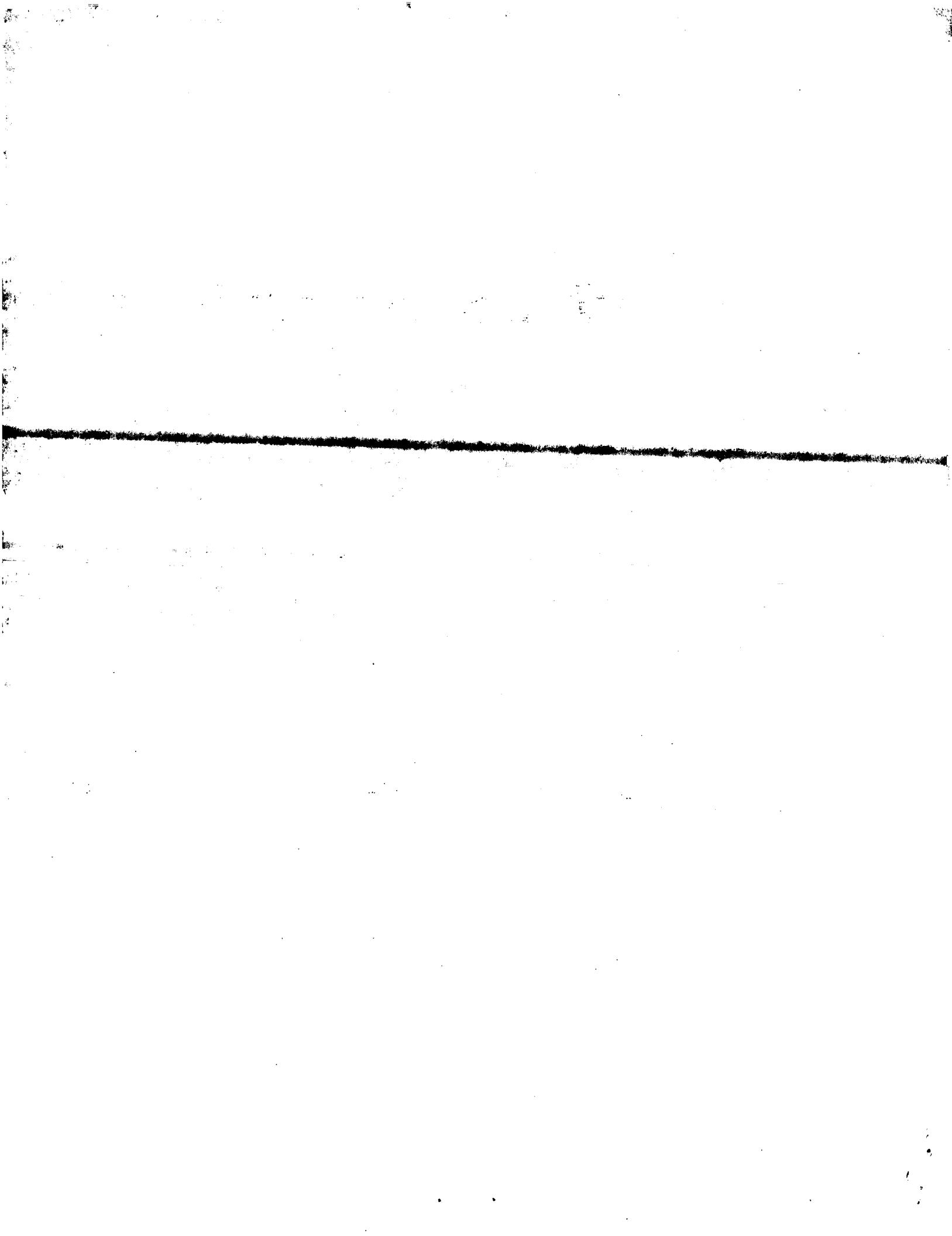
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Fri May 24 11:24:54 2002

us-09-695-121-2_copy_240_345.rapn

Page 17

Search completed: May 24, 2002, 10:01:13
Job time: 207 sec



Result No.	Score	Query Match	Length	DB ID	Description
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2	597	100 0	113	21 AAB10632	Human VEGF-X prote
3	597	100 0	121	22 AAB74334	Synthetic protein
4	597	100 0	123	22 AAB74333	Synthetic protein
5	597	100 0	149	21 AAB10642	Human VEGF-X PDGF
6	597	100 0	318	21 AAY84558	A fragment of Plat
7	597	100 0	339	21 AAB58438	Lung cancer associ
8	597	100 0	345	20 AAY33379	Human VEGF-E prote
9	597	100 0	345	20 AAY41766	Human PRO200 prote
10	597	100 0	345	20 AAY30023	Human vascular end
11	597	100 0	345	21 AAB48857	Human zvegf3, SEQ

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the total score distribution, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	597	100 0	113	21 AAB10631	Human VEGF-X prote
2	597	100 0	113	21 AAB10632	Human VEGF-X prote
3	597	100 0	121	22 AAB74334	Synthetic protein
4	597	100 0	123	22 AAB74333	Synthetic protein
5	597	100 0	149	21 AAB10642	Human VEGF-X PDGF
6	597	100 0	318	21 AAY84558	A fragment of Plat
7	597	100 0	339	21 AAB58438	Lung cancer associ
8	597	100 0	345	20 AAY33379	Human VEGF-E prote
9	597	100 0	345	20 AAY41766	Human PRO200 prote
10	597	100 0	345	20 AAY30023	Human vascular end
11	597	100 0	345	21 AAB48857	Human zvegf3, SEQ

Homo sapiens

OS XX

PN WO20037641-A2.

XX PD 29-JUN-2000.

XX PF 21-DEC-1999;

99WO-US30503.

XX PR 22-DEC-1998;

98GB-0028377.

XX PR 18-MAR-1999;

99US-0124967.

XX PR 08-NOV-1999;

99US-0164131.

XX PA (JANCO) JANSSEN PHARM NV.

Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJH, Xu J; PI Dhanaraj SN, Gosiewska A;

ALIGNMENTS

Database :	A_Geneseq_032802:*	RESULT 1
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	20: /SIDS1/gcdata/hold geneseq/geneseq -emb1/AA1999.DAT:*	KW angiogenesis regulator; diabetic retinopathy; blood vessel; organ repair;
	21: /SIDS1/gcdata/hold geneseq/geneseq -emb1/AA2000.DAT:*	KW rheumatoid arthritis; vascularization regulator; cancer; psoriasis;
	22: /SIDS1/gcdata/hold geneseq/geneseq -emb1/AA2001.DAT:*	KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore; venous sore; diabetic ulcer; burns; skin graft growth.
		XX Homo sapiens

DR WPI: 2000-442669/38.
 DR N-PSDB; AAA71936.
 XX PT New vascular endothelial growth factor protein, useful for treating or preventing diseases associated with inappropriate angiogenesis activity such as cancer, rheumatoid arthritis, psoriasis and wounds -
 XX PS Disclosure; Fig 1; 127pp; English.
 CC This invention describes a novel vascular endothelial growth factor-X (VEGF-X) protein (Ia) and its encoding polynucleotide (IIa) which has pulmonary, cytostatic, antirheumatic, antiarthritic, antipsoriatic and antidiabetic activity and acts as an angiogenesis and vascularization regulator. An antisense molecule of the invention is useful for treating or preventing cancer, rheumatoid arthritis, psoriasis and diabetic retinopathy by inhibiting angiogenic activity or inappropriate vascularization including formation and proliferation of new blood vessels, growth and development of tissues, tissue regeneration and organ and tissue repair in a subject. The products of the invention are useful for preparing medicaments for treating wounds such as dermal ulcers, pressure sores, venous sores, diabetic ulcers and burns and to promote skin graft growth, tissue repair, proliferation of new blood vessels, tissue regeneration and organ repair by promoting angiogenic activity or vascularization. This sequence represents the human VEGF-X protein described in the method of the invention.
 XX Sequence 113 AA;

Query Match Score 597; DB 21; Length 113;
 Best Local Similarity 100.0%; Pred. No. 9.6e-55;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 1 LLTEEVRLSCTPNSYSIREELKRTDTFWPCCLIVRGGNCACCHNNECQCVPS 60
 Db 8 llteevrlsctpnsysireelkrtdtfwpcclivrggncacchnnecqcvps 67
 Qy 61 KVTKKYHEVQLLRPKTGVRGLHKSSTDVALEHHRECDVCVRGSTGG 106
 Db 68 kvtkkyhevqlrpktgvrqlhksldvalheecdcvrgstgg 113

RESULT 2
 AAB10632 standard; Protein; 113 AA.
 ID AAB74034
 XX AC AAB74034 standard; Protein; 121 AA.
 DT 19-JAN-2001 (first entry)
 DE Human VEGF-X protein fragment #2.

XX VEGF-X; vascular endothelial growth factor; human; pulmonary; cytostatic; KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment; KW angiogenesis regulator; vascularization regulator; cancer; psoriasis; KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair; KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore; KW venous sore; diabetic ulcer; burns; skin graft growth.
 XX Homo sapiens.
 OS PN WO200037641-A2.
 XX PD 29-JUN-2000.
 XX PF 21-DEC-1999; 99WO-US30503.
 XX PR 22-DEC-1998; 98GB-0028377.
 PR 18-MAR-1999; 990US-0124967.
 PR 08-NOV-1999; 99US-0166131.
 XX PA (JANIC) JANSSEN PHARM NV.

PI Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJJ, Gosiewska A;
 PI Dhanaraj SN, Xu J;
 XX DR WPI: 2000-442669/38.
 XX PT New vascular endothelial growth factor protein, useful for treating or preventing diseases associated with inappropriate angiogenesis activity such as cancer, rheumatoid arthritis, psoriasis and wounds -
 XX PS Disclosure; Fig 2; 127pp; English.
 CC This invention describes a novel vascular endothelial growth factor-X (VEGF-X) Protein (Ia) and its encoding Polynucleotide (IIa) which has pulmonary, cytostatic, antirheumatic, antiarthritic, antipsoriatic and antidiabetic activity and acts as an angiogenesis and vascularization regulator. An antisense molecule of the invention is useful for treating or preventing cancer, rheumatoid arthritis, psoriasis and diabetic retinopathy by inhibiting angiogenic activity or inappropriate vascularization including formation and proliferation of new blood vessels, growth and development of tissues, tissue regeneration and organ and tissue repair in a subject. The products of the invention are useful for preparing medicaments for treating wounds such as dermal ulcers, pressure sores, venous sores, diabetic ulcers and burns and to promote skin graft growth, tissue repair, proliferation of new blood vessels, tissue regeneration and organ repair by promoting angiogenic activity or vascularization. This sequence represents the human VEGF-X protein described in the method of the invention.
 XX Sequence 113 AA;
 SQ Sequence 113 AA;

Query Match Score 597; DB 21; Length 113;
 Best Local Similarity 100.0%; Pred. No. 9.6e-55;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 1 LLTEEVRLSCTPNSYSIREELKRTDTFWPCCLIVRGGNCACCHNNECQCVPS 60
 Db 8 llteevrlsctpnsysireelkrtdtfwpcclivrggncacchnnecqcvps 67
 Qy 61 KVTKKYHEVQLLRPKTGVRGLHKSSTDVALEHHRECDVCVRGSTGG 106
 Db 68 kvtkkyhevqlrpktgvrqlhksldvalheecdcvrgstgg 113

RESULT 3
 AAB10632 standard; Protein; 121 AA.
 ID AAB74034
 XX AC AAB74034
 XX DT 09-AUG-2001 (first entry)
 DE Synthetic protein #2.
 XX KW VEGF/PDG-like factor; vascular endothelial growth factor; VEGF;
 KW platelet derived growth factor; PDGF; neovascularisation; disease.
 XX OS Synthetic.
 XX PN JP2001017188-A.
 XX PD 23-JAN-2001.
 XX PF 24-APR-2000; 200003P-0122994.
 XX PR 22-APR-1999; 99JP-0115516.
 XX PA (KYOWA HAKKO KOGYO KK,
 PA (HEIKI) HERIKUSU KENKUUSHO KK.
 XX DR WPI; 2001-285410/30.
 XX PT New VEGF/PDG-like factor useful for the development of treating agents

PT for diseases accompanied by accentuation of abnormal neovascularization
 PT
 XX
 PS Claim 8; Page 45; 52pp; Japanese.
 CC The present sequence sequence is provided in a specification relating
 CC to a novel vascular endothelial growth factor (VEGF)/platelet derived
 CC growth factor (PDGF)-like factor of 345 amino acids, or to a sequence
 CC in which at least one amino acid is deleted, replaced or added compared
 CC to the native sequence. The nucleotide sequence encoding the
 CC VEGF/PDGF-like factor may be integrated into a vector and used to
 CC transform a host cell. The VEGF/PDGF-like factor may be used in the
 CC development of agents for treating diseases associated with
 CC abnormal neovascularisation.
 XX

SQ Sequence 121 AA;

Query Match 100.0%; Score 597; DB 22; Length 121;
 Best Local Similarity 100.0%; Pred. No. 1e-54; Indels 0; Gaps 0;
 Matches 106; Conservative 0; Mismatches 0;
 QY 1 LITTEEVRLYSTCPRNFSVIREELKRTDTIFPGCLLVKRCGGNCACCLHNCNECCQCVPS 60
 Db 16 lltteevrlystcpnfsvireelkrtdtifpgcllvkrcggncacclhncneccqcvps 75
 QY 61 KVTKKVHEVLQLRPKTGVRLHKSLTDVALEHHECDVCVRGSGTG 106
 Db 76 kvtkkvhevlqlrpktgvrlhksltvalheecdvcvrgstgg 121

RESULT 4

ID AAB74033; AAB74033 standard; Protein; 123 AA.
 XX

AC AC

DT 09-AUG-2001 (first entry)

XX DE Synthetic protein #1.

XX KW VEGF/PDGF-like factor; vascular endothelial growth factor; VEGF;
 KW platelet derived growth factor; PDGF; neovascularisation; disease.
 XX OS Synthetic.

OS JP2001017188-A.

XX PD 23-JAN-2001.

XX PF 24-APR-2000; 2000JP-0122994.

XX PR 22-APR-1999; 99JP-0115516.

XX PA (KYOWA) KYOWA HAKKO KOGYO KK.
 PA (HERIKUSU KENKYUSHO KK.
 XX DR WPI; 2001-285410/30.

XX PS New VEGF/PDGF-like factor useful for the development of treating agents
 PT for diseases accompanied by accentuation of abnormal neovascularization
 PT
 XX
 PS Claim 7; Page 45; 52pp; Japanese.

CC The present sequence sequence is provided in a specification relating
 CC to a novel vascular endothelial growth factor (VEGF)/platelet derived
 CC growth factor (PDGF)-like factor of 345 amino acids, or to a sequence
 CC in which at least one amino acid is deleted, replaced or added compared
 CC to the native sequence. The nucleotide sequence encoding the
 CC VEGF/PDGF-like factor may be integrated into a vector and used to
 CC transform a host cell. The VEGF/PDGF-like factor may be used in the
 CC development of agents for treating diseases associated with
 CC

CC abnormal neovascularisation.
 XX SQ Sequence 123 AA;

Query Match 100.0%; Score 597; DB 22; Length 123;
 Best Local Similarity 100.0%; Pred. No. 1e-54;
 Matches 106; Conservative 0; Mismatches 0;
 Indels 0; Gaps 0;
 QY 1 LITTEEVRLYSTCPRNFSVIREELKRTDTIFPGCLLVKRCGGNCACCLHNCNECCQCVPS 60
 Db 18 lltteevrlystcpnfsvireelkrtdtifpgcllvkrcggncacclhncneccqcvps 77
 QY 61 KVTKKVHEVLQLRPKTGVRLHKSLTDVALEHHECDVCVRGSGTG 106
 Db 78 kvtkkvhevlqlrpktgvrlhksltvalheecdvcvrgstgg 123

RESULT 5

ID AAB10642; AAB10642 standard; Protein; 149 AA.

XX AC AAB10642;

DT 19-JAN-2001 (first entry)

XX DE Human VEGF-X PDGF-like domain protein.

XX KW VEGF-X; vascular endothelial growth factor; human; vulnery; cytostatic;

KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;

KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;

KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;

KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;

KW venous sore; diabetic ulcer; burns; skin graft growth.

XX OS Homo sapiens.

XX PN WO2000037641-A2.

XX PD 29-JUN-2000.

XX PR 21-DEC-1999; 99WO-US30503.

XX PR 22-DEC-1998; 98GB-0028377.

PR 18-MAR-1999; 99US-0124967.

PR 08-NOV-1999; 99US-0164131.

XX PA (JANSEN PHARM NV.

XX PI Gordon RD, sprengel JJ, Yon JR, Dijkmans JHH, Gosiewska A;

PI Dhanaraj SN, Xu J;

XX DR WPI; 2000-442669/38.

DR N-PSDB; AAA1986.

XX PT New vascular endothelial growth factor protein, useful for treating or
 PT preventing diseases associated with inappropriate angiogenesis activity
 PT such as cancer, rheumatoid arthritis, psoriasis and wounds -
 XX Disclosure; Fig 24; 127pp; English.

CC This invention describes a novel vascular endothelial growth factor-X
 CC (VEGF-X) protein (Ta) and its encoding polynucleotide (Tta) which has
 CC antidiabetic activity and acts as an angiogenesis and vascularization
 CC regulator. An antisense molecule of the invention is useful for treating
 CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
 CC retinopathy by inhibiting angiogenic activity or inappropriate
 CC vascularization including formation and proliferation of new blood
 CC vessels, growth and development of tissues, tissue regeneration and organ
 CC and tissue repair in a subject. The products of the invention are useful
 CC for preparing medicaments for treating wounds such as dermal ulcers,
 CC pressure sores, venous sores, diabetic ulcers and burns and to promote

CC skin graft growth; tissue repair; proliferation of new blood vessels,
 CC tissue regeneration and organ repair by promoting angiogenic activity or
 CC vascularization. This sequence represents a human VEGF-X protein
 CC PDG-F-like domain which can be expressed in E. coli systems and which is
 XX described in the method of the invention.
 SQ Sequence 149 AA:

Query Match 100.0%; Score 597; DB 21; Length 149;
 Best Local Similarity 100.0%; Pred. No. 1 3e-54;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 LLTEEVRLYSCTPRNFSVSTREELKRTDTIFWPFGCLLYKRCGGNCACCUHNCNEQCQCVPS 60
 Db 44 llteevrllyscptprnfsvstrelkrtdtifwpfgcllykrcggncacchncnecqcvps 103
 QY 61 KVTKKYHEVQLQRLPKTGVRLHKSLTDVALEHHECDCIVCRGSTGG 106
 Db 104 kvtkkyhevqlqrpktgvrqlhksldvalheecdcvrgstgg 149

RESULT 6

AAYB4558

standard; Protein; 318 AA.

XX

ID AAYB4558;

AC AAYB4558;

XX

DT 25-JUL-2000 (first entry)

DE A fragment of platelet-derived growth factor C (PDGF-C).

XX

KW Platelet-derived growth factor C; PDGF-C; cell proliferation;

KW growth factor; heparin; connective tissue; wound healing; VEGF-F;

KW fibroblast mitogenesis; PDGF alpha receptor activation; tumour growth;

KW choriocarcinoma; Wilms tumour; megakaryoblastic leukaemia;

KW lung carcinoma; erythroblast leukaemia; tissue remodelling.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT Misc-difference 287

/note= "encoded by AAs"

XX

PN WO200018212-A2.

XX

PD 06-APR-2000.

XX

PF 30-SEP-1999; 99WO-US22668.

XX

PR 30-SEP-1998; 98US-0102461.

PR 12-NOV-1998; 98US-0109109.

PR 03-DEC-1998; 98US-0110749.

PR 18-DEC-1998; 98US-0113002.

PR 21-MAY-1999; 99US-0135426.

PR 15-JUL-1999; 99US-0144022.

XX

PA (LUDWIG) LUDWIG INST CANCER RES.

PA (UTHE) UNIV HELSINKI LICENSING LTD.

XX

PI Eriksson U, Aase K, Lee X, Ponten A, Utetula M, Alitalo K;

PI Oestman A, Heldin C, Betsholtz C;

XX

DR WPI: 2000-292954/25.

DR N-PSDB; AAA1524.

XX

PT Novel DNA encoding PDGF-C useful to stimulate or enhance proliferation,

PT differentiation, growth and motility of cells expressing the PDGF-C

PT receptor -

PS Disclosure; Fig 4; 135PP; English.

XX

CC The present sequence represents a human platelet-derived growth factor C

(PDGF-C) (formally designated VEGF-F) fragment. PDGF-C polypeptides have
 CC the ability to stimulate and enhance proliferation or differentiation,
 CC and/or growth or motility of cells expressing a PDGF-C receptor.
 CC PDGF-C polypeptides can be used in pharmaceuticals for promoting cell
 CC proliferation, preferentially in combination with one other growth factor
 CC and heparin. Pharmaceuticals comprising PDGF-C polypeptides can also
 CC be used for stimulating connective tissue or wound healing. The
 CC PDGF-C polypeptide can be enzymatically processed to generate the active
 CC truncated form of PDGF-C and used to regulate the receptor-binding
 CC specificity of PDGF-C. PDGF-C can also be used to promote fibroblast
 CC mitogenesis in a mammal and to induce PDGF alpha receptor activation.
 CC PDGF-C antagonists can be used to inhibit tumour growth of a tumour
 CC expressing PDGF-C in a mammal. Specific types of human tumours, e.g.
 CC choriocarcinoma, Wilms tumour, megakaryoblastic leukaemia, lung carcinoma
 CC and erythroblast leukaemia, can be identified by testing for expression of
 CC PDGF-C. PDGF-C antagonists can also be used to inhibit tissue
 CC remodelling during invasion of tumour cells into a normal population of
 CC cells. Antagonists can also be used to treat fibrotic conditions,
 CC especially found in the lung, kidney or liver.

SQ Sequence 318 AA;

Query Match 100.0%; Score 597; DB 21; Length 318;

Best Local Similarity 100.0%; Pred. No. 2 9e-54;

Matches 106; Conservative 0; Mismatches 0;

Indels 0; Gaps 0;

QY 1 LLTEEVRLYSCTPRNFSVSTREELKRTDTIFWPFGCLLYKRCGGNCACCUHNCNEQCQCVPS 60

Db 213 llteevrllyscptprnfsvstrelkrtdtifwpfgcllykrcggncacchncnecqcvps 272

QY 61 KVTKKYHEVQLQRLPKTGVRLHKSLTDVALEHHECDCIVCRGSTGG 106

Db 273 kvtkkyhevqlqrpktgvrqlhksldvalheecdcvrgstgg 318

RESULT 7

AAB58438

ID AAB58438 standard; Protein; 339 AA.

XX

AC AAB58438;

XX

DT 14-MAR-2001 (first entry)

XX

DE Lung cancer associated polypeptide sequence SEQ ID 776.

XX

KW Human; lung cancer associated protein; neuroprotective; cytoprotective;

KW cardioactive; immunomodulatory; muscular active; vulnerary;

KW gastrointestinal; nephrotropic; antiinfective; gynaecological;

KW antibacterial; diagnosis; immune disorder; reproductive;

KW proliferative disorder; wound healing; infectious disease.

XX

OS Homo sapiens.

XX

PN WO2000055180-A2.

XX

PD 21-SEP-2000.

XX

PA 08-MAR-2000; 2000WO-US05918.

XX

PR 12-MAR-1999; 99US-0124270.

XX

PA (HUMA-) HUMAN GENOME SCI INC.

XX

PA (ROSE-) ROSEN C A.

XX

PI Ruben SM;

XX

DR WPI: 2000-587514/55.

DR N-FSDB; AAF18314.

XX

PT Lung cancer associated gene sequences, referred to as lung cancer
 PT antigens, useful for treatment, prevention, and diagnosis of disorders
 PT such as lung cancer -

XX Claim 11; Page 1305-1306; 1425pp; English.

XX Polynucleotide sequences AAF17982 - AAF18224 encode human lung cancer associated proteins represented in AAB58106 - AAB58548. Lung cancer antagonists may have neuroprotective, cytostatic, cardiotoxic, immunomodulatory, muscular active general, pulmonary, gastrointestinal general, nephrotropic, antinfective, gynecological, or antibacterial activity. The invention also includes antibodies specific for the protein or polynucleotide sequences. The lung cancer associated polynucleotide sequences may be used for detection of lung cancer, chromosome identification, as chromosome markers, and for numerous other diagnostic or research purposes. The proteins may be used to treat disorders such as neural, immune, muscular, reproductive, gastrointestinal, pulmonary, cardiovascular, renal, and proliferative disorders. The proteins may also be used in the treatment of wounds and infectious diseases. Polynucleotide sequences AAF18225 - AAF18433 and peptide AAB58549 are used in the course of the invention for the identification and characterisation of the polynucleotide and protein sequences.

XX Sequence 339 AA;

Query Match 100.0%; Score 597; DB 21; Length 339;
Best Local Similarity 100.0%; Pred. No. 3.1e-54;
Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LITFEVRLYSCTPRNFSVIREELKRTDTIFWPGCLLVKRGGNCACCLHNCNECQCVPS 60
Db 234 lltfevrlyscsprnfsvireelktktifwpgcllvkrqgnaccalhncneccqcvps 293

Qy 61 KVTKKYHEVQLQLEPKTGVRGLHSLSLDALEHHEECDCVCRGSGTG 106
Db 294 kvtkkhyevqlrpktgvrqlsksldvalenhheecdcvcrqstgg 339

RESULT 8
AAV33679 ID AAV33679 standard; Protein; 345 AA.
XX AC AAV33679;
XX DT 11-JAN-2000 (first entry)
XX DE Human VEGF-E protein.
XX VEGF-E; human; vascular endothelial cell growth factor; wound repair; treatment; cardiovascular disorder; endothelial disorder; therapy; tissue generation; regeneration; cancer; detection; angiogenic disorder; age-related macular degeneration; vascular disease; neovascularization; tumor; gene mapping.
XX OS Homo sapiens.
XX PN WO9947677-A2.
XX PD 23-SEP-1999.
XX PF 10-MAR-1999; 99WO-US05190.
XX PR 17-MAR-1998; 98US-0040220.
XX PR 02-NOV-1998; 98US-0184216.
XX (GETH) GENENTECH INC.
XX PI Ferrara N, Kuo SS;
XX DR WPI; 1999-580306/9.
XX DR N-PSDB; AA223691.
XX PT New growth factor polypeptide useful for treating cardiovascular or

PT XX endothelial disorders, e.g. cardiac hypertrophy -
PS XX Claim 1; Fig 2; 122pp; English.
CC This invention describes the isolation of a novel human vascular endothelial cell growth factor-E (VEGF-E) polypeptide which has CC tranquillizer, vulnerary and cardiotonic activity. VEGF-E can be administered CC therapeutically, especially by expressing encoding polynucleotides to CC treat cardiovascular or endothelial disorders in mammals, especially CC humans. It is useful in wound repair and tissue generation and CC regeneration, and may especially be used to treat cardiac hypertrophy CC It can be combined with a carrier in pharmaceutical compositions, which CC can be administered to treat disorders as above. VEGF-E can be used to CC screen for antagonists and agonists, and the antagonists administered to CC treat angiogenic disorders in mammals (especially humans) e.g. cancer or CC age-related macular degeneration. It can be used to generate antibodies, CC useful therapeutically as antagonists, as above. The antibodies are also CC useful to detect VEGF-E polypeptide, especially to diagnose CC cardiovascular, endothelial or angiogenic disorders in mammals (e.g. CC vascular disease, or neovascularization associated with tumor formation), CC by contacting the antibody with a tissue sample and detecting formation CC of an antibody-VEGF-E polypeptide complex. Polynucleotides encoding CC VEGF-E can be used to diagnose cardiovascular and endothelial disorders CC in mammals, by detecting abnormally high or low VEGF-E gene expression in CC tissue samples. They can also be used to diagnose a disease or CC susceptibility to a disease related to a mutated form of VEGF-E (e.g. a CC cardiovascular, endothelial or angiogenic disorder such as a tumor), by CC detecting a mutation in the VEGF-E-encoding sequence isolated from a CC sample. They may also be used to produce probes useful to detect related CC sequences or for gene mapping. This sequence represents the human VEGF-E CC protein described in the method of the invention.
SQ Sequence 345 AA;
Query Match 100.0%; Score 597; DB 20; Length 345;
Best Local Similarity 100.0%; Pred. No. 3.2e-54;
Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 LITFEVRLYSCTPRNFSVIREELKRTDTIFWPGCLLVKRGGNCACCLHNCNECQCVPS 60
Db 240 lltfevrlyscsprnfsvireelktktifwpgcllvkrqgnaccalhncneccqcvps 299
Qy 61 KVTKKYHEVQLQLEPKTGVRGLHSLSLDALEHHEECDCVCRGSGTG 106
Db 300 kvtkkhyevqlrpktgvrqlsksldvalenhheecdcvcrqstgg 345
RESULT 9
AAV41766 ID AAV41766 standard; Protein; 345 AA.
XX AC AAV41766;
XX DT 07-DEC-1999 (first entry)
XX DE Human PRO200 protein sequence.
XX KW Human; PRO; EST; expressed sequence tag; PCR primer; hybridisation; KW probe; blood coagulation disorder; cancer; cellular adhesion disorder; KW secreted protein; transmembrane protein.
XX OS Homo sapiens.
XX PN WO9946281-A2.
XX PD 16-SEP-1999.
XX PF 08-MAR-1999; 99WO-US05028.
XX PR 10-MAR-1998; 98US-0077450.
XX PR 11-MAR-1998; 98US-0077632.
XX PR 11-MAR-1998; 98US-0077641.

PR 11-MAR-1998; 98US-0077649.
 PR 12-MAR-1998; 98US-0077791.
 PR 13-MAR-1998; 98US-0078004.
 PR 17-MAR-1998; 98US-0040220.
 PR 20-MAR-1998; 98US-0078886.
 PR 20-MAR-1998; 98US-0078910.
 PR 20-MAR-1998; 98US-0078916.
 PR 25-MAR-1998; 98US-0078939.
 PR 25-MAR-1998; 98US-0078934.
 PR 26-MAR-1998; 98US-0079056.
 PR 27-MAR-1998; 98US-0079063.
 PR 27-MAR-1998; 98US-0079064.
 PR 27-MAR-1998; 98US-0079089.
 PR 27-MAR-1998; 98US-0079092.
 PR 27-MAR-1998; 98US-0079096.
 PR 30-MAR-1998; 98US-0079220.
 PR 31-MAR-1998; 98US-007923.
 PR 01-APR-1998; 98US-0080105.
 PR 31-MAR-1998; 98US-0080107.
 PR 31-MAR-1998; 98US-0080165.
 PR 01-APR-1998; 98US-0080194.
 PR 01-APR-1998; 98US-0080327.
 PR 01-APR-1998; 98US-0080328.
 PR 01-APR-1998; 98US-0080333.
 PR 08-APR-1998; 98US-0080334.
 PR 08-APR-1998; 98US-008049.
 PR 08-APR-1998; 98US-008070.
 PR 09-APR-1998; 98US-0081071.
 PR 09-APR-1998; 98US-0081195.
 PR 09-APR-1998; 98US-0081203.
 PR 09-APR-1998; 98US-0081229.
 PR 15-APR-1998; 98US-0081817.
 PR 15-APR-1998; 98US-0081838.
 PR 15-APR-1998; 98US-0081952.
 PR 15-APR-1998; 98US-0081955.
 PR 21-APR-1998; 98US-0082568.
 PR 22-APR-1998; 98US-0082569.
 PR 22-APR-1998; 98US-0082100.
 PR 22-APR-1998; 98US-0082104.
 PR 23-APR-1998; 98US-0082804.
 PR 23-APR-1998; 98US-0082767.
 PR 27-APR-1998; 98US-008336.
 PR 28-APR-1998; 98US-0083322.
 PR 29-APR-1998; 98US-0083392.
 PR 29-APR-1998; 98US-008495.
 PR 29-APR-1998; 98US-008496.
 PR 29-APR-1998; 98US-008499.
 PR 29-APR-1998; 98US-008500.
 PR 29-APR-1998; 98US-008545.
 PR 29-APR-1998; 98US-008554.
 PR 29-APR-1998; 98US-008558.
 PR 29-APR-1998; 98US-008559.
 PR 30-APR-1998; 98US-008742.
 PR 05-MAY-1998; 98US-0084366.
 PR 06-MAY-1998; 98US-008414.
 PR 07-MAY-1998; 98US-008414.
 PR 07-MAY-1998; 98US-008441.
 PR 07-MAY-1998; 98US-0084598.
 PR 07-MAY-1998; 98US-0084600.
 PR 07-MAY-1998; 98US-0084627.
 PR 07-MAY-1998; 98US-0084637.
 PR 07-MAY-1998; 98US-0084639.
 PR 07-MAY-1998; 98US-0084640.
 PR 07-MAY-1998; 98US-0084643.
 PR 13-MAY-1998; 98US-0084323.
 PR 13-MAY-1998; 98US-0083338.
 PR 13-MAY-1998; 98US-0083339.
 PR 15-MAY-1998; 98US-008573.
 PR 15-MAY-1998; 98US-008579.
 PR 15-MAY-1998; 98US-008580.
 PR 15-MAY-1998; 98US-0085689.
 PR 15-MAY-1998; 98US-0085697.

PR 15-MAY-1998; 98US-0085700.
 PR 15-MAY-1998; 98US-0085704.
 PR 18-MAY-1998; 98US-0086023.
 PR 22-MAY-1998; 98US-0086392.
 PR 22-MAY-1998; 98US-0086414.
 PR 22-MAY-1998; 98US-0086430.
 PR 22-MAY-1998; 98US-0086486.
 PR 28-MAY-1998; 98US-0087098.
 PR 28-MAY-1998; 98US-0087208.
 PR 30-JUL-1998; 98US-0094651.
 PR 11-SEP-1998; 98US-0100038.
 XX PA (GETH) GENENTECH INC.
 XX PI Wood WI, Goddard A, Gurney A, Yuan J, Baker KP, Chen J;
 XX DR WPI; 1999-551358/46.
 XX N-PSDB; AAZ34296.
 XX PT New secreted and transmembrane polypeptides and their polynucleotides, cancers and cellular adhesion disorders -
 XX PS Claim 12; Fig 207; 530pp; English.
 XX CC The present invention describes secreted and transmembrane polypeptides and their polynucleotide sequences are useful as sources of probes, primers, for chromosome mapping, and for generation of antisense sequences. They can also be used to create transgenic animals. The proteins can be used to treat a variety of diseases and disorders, depending on their function. Diseases that may be treated include blood coagulation disorders, cancers and cellular adhesion disorders. They may also be used to raise antibodies. AAZ33891 to AAZ34338, and AAY41165 to AAY4174 represent polynucleotide and polypeptide sequence given in. The exemplification of the present invention.
 XX SQ Sequence 345 AA;
 Query Match 100.0%; Score 597; DB 20;
 Best Local Similarity 100.0%; Pred. No. 3, 2e-54;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 1 LITDEBVRILYSCTPNFSVIREEKRTDTIFWGLLHKSLTDYALEHHEDCDVGCRGSTGG 60
 Db 240 11tevrlyscstpnpfsvireekrtctifwpgclirkcgcncaclhncneqcvcps 299
 Qy 61 KVTKKHYEVLYQLRFLPFTGVRLHKSLTDYALEHHEDCDVGCRGSTGG 106
 Db 300 kvtkkhyevlqirpktgvrqlhksltavlehhedcdvcrgstgg 345
 RESULT 1.0
 ID AAY30023 standard; Protein; 345 AA.
 ID AAY30023; AC
 XX DT 11-OCT-1999 (first entry)
 XX DE Human vascular endothelial growth factor related protein.
 KW KW Vascular endothelial growth factor related protein; VEGF-R protein;
 KW KW tissue growth inhibition; tumour growth; cancer; tissue growth;
 KW KW angiogenesis; coronary artery blockage.
 XX OS Homo sapiens.
 XX PN WO937671-A1.
 XX PD 29-JUL-1999.
 XX PD

XX PR 10 -NOV-1999; 99US-0164463.
 PF PR 04 -FEB-2000; 2000US-0180169.
 XX XX
 PR PA (ZYMO) ZYMOGENETICS INC.
 XX PA
 PI Gilbert T, Hart CE, Sheppard PO, Gilbertson DG;
 XX DR WPI: 2000-687541/67.
 PR N-PSDB; AAC81582.
 XX DR
 PT Growth factor homologs and the nucleic acids that encode them, useful
 PT e.g. for treating liver damage, ischemia, multiple sclerosis and
 PT Alzheimer's disease -
 XX
 PS Claim 48; Page 125-126; 143pp; English.
 XX
 CC The invention relates to the human growth factor homologue zvegf4
 CC (AAB8653), and nucleic acids encoding it (AAC81555). Zvegf4 is a member
 CC of the PDGF (platelet-derived growth factor)/VEGF (vascular endothelial
 CC growth factor) family. Zvegf4 has a growth factor domain (AAB8654)
 CC characterised by a PDGF cystine knot structure, and a CUB domain
 CC (CUB48655) which has a beta barrel structure. Zvegf4 has PDGF-like
 CC activity, having mitogenic activity on fibroblasts, vascular smooth
 CC muscle cells and pericytes, and has also been shown to stimulate bone
 CC growth. The invention also relates to fusion proteins comprising human
 CC zvegf4 or fragments thereof, particularly human zvegf4/human zvegf3
 CC fusions; expression constructs and host cells comprising human zvegf4
 CC nucleic acids, the recombinant expression of human zvegf4 or a fragment thereof; a method of activating
 CC which binds to human zvegf4 or a fragment thereof; a method of activating
 CC a cell-surface PDGF receptor using a zvegf4-derived polypeptide; a
 CC method of modulating the proliferation, differentiation, migration or
 CC metabolism of bone cells, comprising exposing bone cells to
 CC zvegf4-derived polypeptides; and a method of detecting a genetic
 CC abnormality in the zvegf4 gene of a patient. Zvegf4 proteins and derived
 CC fragments may be used to stimulate tissue development or repair, or
 CC cellular differentiation or proliferation. They are particularly used for
 CC the treatment or repair of liver damage, and may also be used to
 CC modulate neurite growth (e.g., in the treatment of Alzheimer's disease or
 CC multiple sclerosis). Due to their osteogenic activity, they may be used
 CC in the treatment of periodontal disease and fractures. They may also be
 CC used to enhance expansion and mobilisation of haemopoietic stem cells
 CC and endothelial precursor stem cells, which may be useful in the
 CC treatment of ischaemia, in wound healing, and in the modulation of the
 CC immune system. The present sequence represents human zvegf3.
 XX Sequence 345 AA;
 SQ
 Query Match 100.0%; Score 597; DB 20; Length 345;
 Best Local Similarity 100.0%; Pred. No. 3.2e-54;
 Matches 106; Conservative 0; Mismatches 0; Gaps 0;
 YY 1 LLTBEVRLYSCTPRNFNSVIREELKRTDTIFNGCLLYKRCGGNCACCLHNCNECCQCVPS 60
 Db 240 llteevrlsctprnfnsvireelkrtdtifngcllykrcggncacclhncneccqcvps 299
 QY 61 KVTKKYHEVQLRPKTGVRGLHSKSLTDVALEHHECDCVCRSSTGG 106
 Db 300 kvtkkyhevlqlrpktgyrglhsltdvalheecdcvcrstgg 345
 XX
 RESULT 11
 ID AAB8657
 ID AAB8657 standard; Protein; 345 AA.
 XX
 AC AAB8657;
 XX DT 09-MAR-2001 (first entry)
 DE Human zvegf3, SEQ ID NO:33.
 XX
 KW Human; zvegf3; zvegf4 fusion; growth factor homologue; VEGF/PDGF family;
 KW CUB domain; PDGF-like activity; mitogenic; osteogenic;
 KW neovascularisation; tissue repair; proliferation; differentiation;
 KW Periodontal disease; bone fracture; wound healing; vulnerability; ischaemia;
 KW immunomodulation; hepatic.
 XX OS Homo sapiens.
 XX PN WO20066736-A1.
 XX DT 08-FEB-2001 (first entry)
 DE Human platelet-derived growth factor related protein LP8.
 XX KW Human; platelet derived growth factor related protein; LP8; VEGFh;
 PR KW vascular endothelial growth factor h; tissue regeneration; vulnery;

atherosclerosis; PDGF-related protein; antiarteriosclerotic..

Homo sapiens.

WO200059940-A2.

12-OCT-2000.

24-MAR-2000; 2000WO-US06427.

06-APR-1999; 99US-0127913.

(ELI LILLY & CO ELI.

Hammond LJ, Na S;

WPI; 2000-664991/64.

N-PSDB; AAC64426.

Enhancing tissue growth and promoting wound healing by administering platelet-derived growth factor related protein, LP8 or its analog and treating atherosclerosis by administering LP8 antagonist.

Claim 4: Page 63-64; 64pp; English.

The present invention describes a method for enhancing tissue growth, promoting wound healing or stimulating smooth muscle growth by administering a platelet-derived growth factor (PDGF) related protein, designated LP8 or its analogue. Also described is a method of slowing the progress of atherosclerosis or treating atherosclerosis comprising the administration of an LP8 antagonist. The method is useful for enhancing tissue growth, promoting wound healing and stimulating smooth muscle growth. Antagonists of LP8 are useful for treating atherosclerosis. The present sequence represents human LP8, which is also called VEGFh.

query	Match	100.0%	Score	597;	DB	21;	Length	345;
best Local similarity	100.0%	Prod. No.	3.2e-54					
matches	106;	Conservative	0;	Mismatches	0;	Indels	0;	Gaps
								0;
1	LITTEVRVLSTCPRFNSVSIREEELKRTDTIFWPGCLLIVKRGGNCACCLHNCQCVPS	60						
240	litttevrvlstcpnfsvsiireelkrtdtifwpgcllivkrggncacclhncqcvps	299						
61	KTKKKHREVLQLRPTKGYRGHLKSLTDVALEHHEDCDCVGRGSGTGG	106						
300	ktkkkhqlvqrptkgyrqhlksitdvallehhedcdcvgrsttq	345						

DULT 13
AAB44322 standard; protein; 345 AA.
AAB44322;
08-FEB-2001 (first entry)
Human PRO200 (UNQ174) protein sequence SEQ ID NO:488.
Human; secreted protein; transmembrane protein; PRO; EST; cytosolic; expressed sequence tag; detection; cancer.

Homo sapiens.
WO200053756-A2.
14-SEP-2000.
18-FEB-2000; 2000WO-US04341.

PR	08-MAR-1999;	99W0-US05028.
PR	12-MAR-1999;	99US-0123957.
PR	29-MAR-1999;	99US-0126773.
PR	21-APR-1999;	99US-013032.
PR	28-APR-1999;	99US-0131445.
PR	14-MAY-1999;	99US-0134287.
PR	23-JUN-1999;	99US-0141037.
PR	26-JUL-1999;	99US-0145638.
PR	29-OCT-1999;	99US-0162901.
PR	30-NOV-1999;	99W0-US28313.
PR	02-DEC-1999;	99W0-US28551.
PR	02-DEC-1999;	99W0-US28551.
PR	16-DEC-1999;	99W0-US30095.
PR	30-DEC-1999;	99W0-US31243.
PR	30-DEC-1999;	99W0-US31244.
PR	05-JAN-2000;	2000W0-US00119.
PR	06-JAN-2000;	2000W0-US00277.
PR	06-JAN-2000;	2000W0-US03376.
XX	(GETH) GENENTECH INC.	
PA		
PI	Ashkenazi AJ, Baker KP, Bot	
PI	Ferrada N, Filvaroff E,	
PI	Goddard A, Goddard PJ, Gr	
PI	Kijavim IU, Kuo SS,	
PI	Shelton DL, Stewart TA, Tun	
XX	DR; 2000-611443/58.	
DR	N-PSDB; AAC78582.	
XX		
PI	Novel PRO polypeptides and po	
PT	to target bioactive molecules -	
PT	cellular activities -	
XX		
PS	Claim 12: Fig 207: 636pp; Eng	
XX		
CC	AAC78458 to AAC78599 represent	
CC	sequence tag) sequences which	
CC	polypeptides. The PRO polypepti	
CC	activity. The polynucleotides	
CC	the presence of PRO polypepti	
CC	molecules to cells and for mo	
CC	using the polypeptides for se	
CC	can be used to kill the target	
CC	The polypeptide pairs provide	
CC	to cells. AAC78600 to AAC7899	
CC	the isolation of the PRO poly	
XX	Sequence 345 AA;	
SQ		
Query Match	100.0%	
Best Local Similarity	100.0%	
Matches 106;	Conservative	
Db	1 LLTTEVRLYRSCTPNNFSVSTREEL	
Db	240 lltttllllllllllllllllllllllllllll	
Qy	1 KVTKVTKHEVQLQRKPTGVGLHKSC	
Qy	61 KVTKVTKHEVQLQRKPTGVGLHKSC	
Db	300 kvtkvtkhevqlqrkptgvglhks	
RESULT	14	
AAB10633	AAB10633 standard;	Protein; 3
ID	AAB10633	
XX		
AC		
XX		
DT	19-JAN-2001 (first entry)	
DE		
DE	Human RACE generated VEGF-X	
DE	DE	

XX VEGF-X; vascular endothelial growth factor; human; pulmonary; cytostatic;
 KW antirheumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
 KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
 KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
 KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
 KW venous sore; diabetic ulcer; burns; skin graft growth.
 XX OS Homo sapiens.
 XX PN WO200037641-A2.
 XX PD 29-JUN-2000.
 XX PF 21-DEC-1999; 99WO-US30503.
 XX PR 22-DEC-1998; 98GB-0028377.
 XX PR 18-MAR-1999; 99US-0124467.
 XX PR 08-NOV-1999; 99US-0124467.
 PA (JANCO) JANSSEN PHARM NV.
 XI Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJJ, Gosiewska A;
 PI Dhanaraj SN, Xu J;
 PI DR WPI: 2000-442669/38.
 XX N-PSDBB; AAA71951.
 DR WPI: 2000-442669/38.
 DR N-PSDBB; AAA71951.
 PT New vascular endothelial growth factor protein, useful for treating or
 PT preventing diseases associated with inappropriate angiogenesis activity
 such as cancer, rheumatoid arthritis, psoriasis and wounds -
 PT Disclosure; Fig 6; 127pp; English.
 XX This invention describes a novel vascular endothelial growth factor-X
 CC (VEGF-X) protein (Ia) and its encoding polynucleotide (IIa) which has
 CC a vascular, cytotoxic, antiarthritic, antipsoriatic and
 CC antidiabetic activity and acts as an angiogenesis and vascularization
 CC regulator. An antisense molecule of the invention is useful for treating
 CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
 CC retinopathy by inhibiting angiogenic activity or inappropriate
 CC vascularization including formation and proliferation of new blood
 CC vessels, growth and development of tissues, tissue regeneration and organ
 CC and tissue repair in a subject. The products of the invention are useful
 CC for preparing medicaments for treating wounds such as, dermal ulcers,
 CC pressure sores, venous sores, diabetic ulcers and burns to promote
 CC skin graft growth, tissue repair, proliferation of new blood vessels,
 CC tissue regeneration and organ repair by promoting angiogenic activity or
 CC vascularization. This sequence represents the RACE generated human VEGF-X
 protein described in the method of the invention.
 XX Sequence 345 AA;

Query Match 100.0%; Score 597; DB 21; Length 345;
 Best Local Similarity 100.0%; Pred. No. 3.2e-54;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Query 1 LLTEEVRLYSTPRNFSVSTREELKRTDTIFWPGCLVKRQGGNCACCLNCNECQCVPS 60
 Db 240 llteevrlystprnfsvstireelkrtdtifwpgclvkrggnacclhmcneqcvps 299
 Query 61 KVTKKYHEVILQLRKPKTGYRGLHKSITDVALHEECDCYCVRGSTGG 106
 Db 300 kvtkkyhevigrpktrgvgvrgihksitdvalheecdcvrgstgg 345
 RESULT 15
 ID AAB10634 standard; Protein: 345 AA.
 XX AC AAB10634;
 XX

DT 19-JAN-2001 (first entry)
 XX Human VEGF-X homologue protein.
 DE
 KW VEGF-X; vascular endothelial growth factor; human; pulmonary; cytostatic;
 KW anti-heumatic; antiarthritic; antipsoriatic; antidiabetic; treatment;
 KW angiogenesis regulator; vascularization regulator; cancer; psoriasis;
 KW rheumatoid arthritis; diabetic retinopathy; blood vessel; organ repair;
 KW tissue regeneration; tissue repair; wound; dermal ulcer; pressure sore;
 KW venous sore; diabetic ulcer; burns; skin graft growth.
 XX Homo sapiens.
 OS
 PN WO200037641-A2.
 XX PD 29-JUN-2000.
 XX PF 21-DEC-1999; 99WO-US30503.
 XX PR 22-DEC-1998; 98GB-0028377.
 PR 18-MAR-1999; 99US-0124467.
 PR 08-NOV-1999; 99US-016431.
 XX PA (JANCO) JANSSEN PHARM NV.
 PI Gordon RD, Sprengel JJ, Yon JR, Dijkmans JJJ, Gosiewska A;
 PI Dhanaraj SN, Xu J;
 XX WPI: 2000-442669/38.
 DR N-PSDBB; AAA71951.
 PT New vascular endothelial growth factor protein, useful for treating or
 PT preventing diseases associated with inappropriate angiogenesis activity
 PT such as cancer, rheumatoid arthritis, psoriasis and wounds -
 PT Disclosure; Fig 7; 127pp; English.
 PS This invention describes a novel vascular endothelial growth factor-X
 CC (VEGF-X) protein (Ia) and its encoding polynucleotide (IIa) which has
 CC a vascular, cytotoxic, antiarthritic, antipsoriatic and
 CC antidiabetic activity and acts as an angiogenesis and vascularization
 CC regulator. An antisense molecule of the invention is useful for treating
 CC or preventing cancer, rheumatoid arthritis, psoriasis and diabetic
 CC retinopathy by inhibiting angiogenic activity or inappropriate
 CC vascularization including formation and proliferation of new blood
 CC vessels, growth and development of tissues, tissue regeneration and organ
 CC and tissue repair in a subject. The products of the invention are useful
 CC for preparing medicaments for treating wounds such as, dermal ulcers,
 CC pressure sores, venous sores, diabetic ulcers and burns to promote
 CC skin graft growth, tissue repair, proliferation of new blood vessels,
 CC tissue regeneration and organ repair by promoting angiogenic activity or
 CC vascularization. This sequence represents the human VEGF-X protein
 CC homologue described in the method of the invention.
 XX Sequence 345 AA;

Query Match 100.0%; Score 597; DB 21; Length 345;
 Best Local Similarity 100.0%; Pred. No. 3.2e-54;
 Matches 106; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Query 1 LLTEEVRLYSTPRNFSVSTREELKRTDTIFWPGCLVKRQGGNCACCLNCNECQCVPS 60
 Db 240 llteevrlystprnfsvstireelkrtdtifwpgclvkrggnacclhmcneqcvps 299
 Query 61 KVTKKYHEVILQLRKPKTGYRGLHKSITDVALHEECDCYCVRGSTGG 106
 Db 300 kvtkkyhevigrpktrgvgvrgihksitdvalheecdcvrgstgg 345
 Search completed: May 24, 2002, 09:58:18
 Job time: 332 sec

GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.

OM protein - protein search, using sw model

Run on: May 24, 2002, 09:56:16 ; Search time 13.01 Seconds

(without alignments)
199.009 Million cell updates/sec

Title: US-09-695-121-2_COPY_240_345

Perfect score: 597 Sequence: 1 LITTEEVRLYSCPRNFSVSI.....DVALEHHECDYCGRGTTGG 1.06

Scoring table: BL050M62 Gapop 10.0 , Gapext 0.5

Searched: 231628 seqs, 24425594 residues

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : Issued_Patents_AA:*

1: /egn2_6/ptodata/2/iaa/5A_COMB.pep:*

2: /egn2_6/ptodata/2/iaa/5B_COMB.pep:*

3: /egn2_6/ptodata/2/iaa/6A_COMB.pep:*

4: /egn2_6/ptodata/2/iaa/6B_COMB.pep:*

5: /egn2_6/ptodata/2/iaa/PCBTUS_COMB.pep:*

6: /egn2_6/ptodata/2/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query	Match	Length	DB ID	Description
1	115.5	19.3	321	4	US-08-915-795-9	Sequence 9, Appli
2	115.5	19.3	358	4	US-08-915-795-8	Sequence 8, Appli
3	111.5	18.7	325	4	US-08-915-795-3	Sequence 3, Appli
4	111.5	18.7	354	4	US-08-915-795-5	Sequence 5, Appli
5	105	17.6	109	1	US-08-094-079-2	Sequence 2, Appli
6	105	17.6	109	1	US-08-094-079-3	Sequence 3, Appli
7	105	17.6	109	2	US-08-804-953-3	Sequence 4, Appli
8	105	17.6	109	3	US-08-691-794-4	Sequence 18, Appli
9	105	17.6	109	5	PCT-US91-02766-18	Sequence 1, Appli
10	105	17.6	109	5	PCT-US93-02612-1	Patent No. 5496000
11	12	105	109	6	5496000-3	Sequence 2, Appli
12	105	17.6	119	2	US-08-257-494D-1	Patent No. 5428135
13	105	17.6	120	6	5428135-2	Sequence 2, Appli
14	105	17.6	146	3	US-08-989-251-2	Sequence 25, Appli
15	105	17.6	146	3	US-08-989-251-25	Sequence 2, Appli
16	105	17.6	146	3	US-09-340-250-2	Sequence 25, Appli
17	105	17.6	146	3	US-09-340-250-25	Sequence 2, Appli
18	105	17.6	146	4	US-09-528-108-2	Sequence 25, Appli
19	105	17.6	146	4	US-09-528-108-25	Sequence 1, Appli
20	105	17.6	160	1	US-08-094-079-1	Sequence 11, Appli
21	105	17.6	188	1	US-08-469-427A-11	Sequence 11, Appli
22	105	17.6	188	2	US-08-609-443B-11	Sequence 11, Appli
23	105	17.6	188	2	US-08-569-0630-11	Sequence 11, Appli
24	105	17.6	188	4	US-08-795-430-57	Sequence 57, Appli
25	105	17.6	190	3	US-08-867-352-25	Sequence 25, Appli
26	105	17.6	205	3	US-08-989-251-27	Sequence 27, Appli
27	105	17.6	205	3	US-08-989-251-37	Sequence 37, Appli

Query Match Score 19.3%; Best Local Similarity 33.0%; Matches 35; Length 321; Pred. No. 4.8e-05; Mismatches 15; Indels 15; Gaps 6;

28	105	17.6	205	3	US-09-340-250-27	Sequence 27, Appli
29	105	17.6	205	3	US-09-340-250-37	Sequence 37, Appli
30	105	17.6	205	4	US-09-528-108-27	Sequence 37, Appli
31	105	17.6	207	4	US-09-528-108-37	Sequence 15, Appli
32	105	17.6	207	2	US-08-609-443B-15	Sequence 15, Appli
33	105	17.6	220	6	US-08-569-063C-15	Patent No. 517555
34	105	17.6	241	1	US-08-387-845-4	Sequence 4, Appli
35	105	17.6	241	2	US-08-999-811-6	Sequence 6, Appli
36	105	17.6	241	2	US-08-778-275-4	Sequence 4, Appli
37	105	17.6	241	2	US-08-824-996-8	Sequence 8, Appli
38	105	17.6	241	3	US-08-989-251-29	Sequence 29, Appli
39	105	17.6	241	3	US-09-042-105-6	Sequence 6, Appli
40	105	17.6	241	3	US-08-867-352-4	Sequence 4, Appli
41	105	17.6	241	3	US-09-340-250-29	Sequence 29, Appli
42	105	17.6	241	3	US-08-795-430-54	Sequence 54, Appli
43	105	17.6	241	4	US-09-528-108-29	Sequence 29, Appli
44	105	17.6	241	4	PCT-US96-09001-9	Sequence 9, Appli

ALIGNMENTS

RESULT 1
US-08-15-795-9
; Sequence 9, Application US/08915795
; Patent No. 6235713
; GENERAL INFORMATION:
; APPLICANT: Marc G. ACHEN
; APPLICANT: Andrew F. WILKS
; APPLICANT: Steven A. STACKER
; APPLICANT: Kari ALITALO
; TITLE OF INVENTION: GROWTH FACTOR
; NUMBER OF SEQUENCES: 11
; CORRESPONDENCE ADDRESS:
; STREET: 1200 G Street, NW, Suite 700
; CITY: Washington
; STATE: DC
; COUNTRY: United States of America
; ZIP: 20005
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIN Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/915,795
; FILING DATE:
; CLASSIFICATION: 536
; ATTORNEY/AGENT INFORMATION:
; NAME: EVANS, Joseph D.
; REGISTRATION NUMBER: 26,269
; REFERENCE/DOCKET NUMBER: 1064/42983
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202) 628-8800
; TELEX: (202) 628-8840
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 321 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; ORIGINAL SOURCE:
; TISSUE TYPE: Mouse Lung
; US-08-915-795-9

RESULT 2
US-08-915-795-8

Sequence 8, Application US/08915795
 Patent No. 6235713

GENERAL INFORMATION:

APPLICANT:	Marc G. ACHEN
APPLICANT:	Andrew F. WILKS
APPLICANT:	Steven A. STACKER
APPLICANT:	Kari ALITALO

TITLE OF INVENTION: GROWTH FACTOR
 NUMBER OF SEQUENCES: 11

CORRESPONDENCE ADDRESS:

ADDRESSEE: Enveron, McKeown, Edwards & Lenahan P.L.L.C.
 STREET: 1200 G Street, NW, Suite 700
 CITY: Washington
 STATE: DC
 COUNTRY: United States of America
 ZIP: 20005

COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent In Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER:	US/08/915,795
FILING DATE:	
CLASSIFICATION:	536

ATTORNEY/AGENT INFORMATION:

NAME:	EVANS, Joseph D.
REGISTRATION NUMBER:	26,269
REFERENCE/DOCKET NUMBER:	1064/42983

TELECOMMUNICATION INFORMATION:

TELEPHONE:	(202) 628-8800
TELEFAX:	(202) 628-8844
TELEX:	N/A

INFORMATION FOR SEQ ID NO: 8:

SEQUENCE CHARACTERISTICS:	
LENGTH:	358 amino acids
TYPE:	amino acid
STRANDEDNESS:	single
TOPOLOGY:	linear
MOLECULE TYPE:	protein
ORIGINAL SOURCE:	
TISSUE TYPE:	Mouse Lung

US-08-915-795-8

Query Match 19.38; **Score** 115.5; **DB** 4; **Length** 358;
Best Local Similarity 33.0%; **Prod. No.** 5.e-05; **Indels** 15; **Gaps** 58;
Matches 35; **Conservative** 15; **Mismatches** 41;

Query 1 LLTTEVRLYSCTPRNFSVIRREL-KRTDTIFWPGCLVKGCGNCACCLHNCNECCV- 58-
Db 101 VIDEWQRTQCSPRCTCVAESELGKTNTFFKPKCIVNFRCGG--CC--NEEGVMCMN 155

Query 59 -PSKVTKKYHEVQLRPKTGYVLHKSLTDVALHEECDCVCRG 102

Db 156 TSTSYISKQLFBSV-PLTSV---PELVPVKIANHTGCKCLPPTG 195

Query Match 19.38; **Score** 115.5; **DB** 4; **Length** 358;
Best Local Similarity 33.0%; **Prod. No.** 5.e-05; **Indels** 15; **Gaps** 58-
Matches 35; **Conservative** 15; **Mismatches** 41;

Query 1 LLTTEVRLYSCTPRNFSVIRREL-KRTDTIFWPGCLVKGCGNCACCLHNCNECCV- 58-
Db 106 VIDEWQRTQCSPRCTCVAESELGKTNTFFKPKCIVNFRCGG--CC--NEEGVMCMN 160

Query 59 -PSKVTKKYHEVQLRPKTGYVLHKSLTDVALHEECDCVCRG 102

Db 161 TSTSYISKQLFBSV-PLTSV---PELVPVKIANHTGCKCLPPTG 200

Patent No. 6235713
GENERAL INFORMATION:
APPLICANT: Marc G. ACHEN
APPLICANT: Andrew F. WILKS
APPLICANT: Steven A. STACKER
APPLICANT: Kari ALITALO
TITLE OF INVENTION: GROWTH FACTOR
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: Evanson, McKeown, Edwards & Lenahan P.L.L.C.
STREET: 1200 G Street, NW, Suite 700
CITY: Washington, DC
STATE: DC
COUNTRY: United States of America
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,795
FILING DATE:
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, Joseph D.
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/429983
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-3800
TELEFAX: (202) 628-8844
TELEX: N/A
SEQUENCE FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 325 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
ORIGINAL SOURCE:
TISSUE TYPE: Human Breast
US 08-915-795-3

Query Match Score 18.7%; DB 4; Length 32
Best Local Similarity 32.8%; Pred. No. 0.00013;
Matches 33; Conservative 14; Mismatches 43; Indels 4

Qy 1 LITAEVRLYSCDPRNSVSTRELL-KRTDPFLWFGCLLYKRCGNCAACLHN
Db 72 VIDEENQRQTQSPRETICVEASELRKSTNTFEKKPCVNVRFCGG--CCNEESI

Qy 59 PSKVTKKYHEVQLRPKTGYRLKHSLSLTDYALEHHEECDCV 99
Db 129 TSYISKOLFEISV--PLTSV---PELVPKVAHTGCKCL 163

RESULT 4
US-08-915-795-5
Sequence 5, Application US/08915795
Patent No. 6235713
GENERAL INFORMATION:
APPLICANT: Marc G. ACHEN
APPLICANT: Andrew F. WILKS
APPLICANT: Steven A. STACKER
APPLICANT: Kari ALITALO
TITLE OF INVENTION: GROWTH FACTOR
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: Evanson, McKeown, Edwards & Lenahan P.L.L.C.
STREET: 1200 G Street, NW, Suite 700
CITY: Washington

STATE: DC ; COUNTRY: United States of America ; ZIP: 20005 ; COMPUTER READABLE FORM: ; MEDIUM TYPE: Floppy disk ; COMPUTER: IBM PC compatible ; OPERATING SYSTEM: PC-DOS/MS-DOS ; SOFTWARE: PatentIn Release #1.0, Version #1.25 ; CURRENT APPLICATION DATA: ; APPLICATION NUMBER: US/08/915,795 ; FILING DATE: ; CLASSIFICATION: 536 ; ATTORNEY/AGENT INFORMATION: NAME: EVANS, Joseph D. ; REGISTRATION NUMBER: 26,269 ; REFERENCE DOCKET NUMBER: 1064/42983 ; TELECOMMUNICATION INFORMATION: ; TELEPHONE: (202) 628-8800 ; TELEFAX: (202) 628-8844 ; TELEX: N/A ; INFORMATION FOR SEQ ID NO: 5 : ; SEQUENCE CHARACTERISTICS: LENGTH: 354 amino acids ; TYPE: amino acid ; STRANDEDNESS: single ; TOPOLOGY: linear ; MOLECULE TYPE: protein ; HYPOTHETICAL: NO ; ORIGINAL SOURCE: ; TISSUE TYPE: Human Lung ; US-08-915-795-5

Query Match 18.7%; Score 111.5; DB 4; Length 354; Best Local Similarity 32.7%; Pred. No. 0.00014; Matches 33; Conservative 14; Mismatches 43; Indels 11; Gaps 5;

Qy 1 LTEEVRLYSCPRNFVSIRBEL-KRTDTIFWPGCLLVKRGGNACCLHNCNEC-QCV 58
Db 101 PSKVTKKYHEVLQLRPTKPTVQSPRETVAVASLGSTNTFKPPVNVFRGG--CCNNEBSLTGMMTS 157

Qy 59 PSKVTKKYHEVLQLRPTKPTVQSPRETVAVASLGSTNTFKPPVNVFRGG 99
Db 158 TSYISKQLEFISV--PLTSV---PELVPKVANHTGCKCL 192

RESULT 5 US-08-094-079-2 ; Sequence 2, Application US/08094079 ; Patent No. 5512545 ; GENERAL INFORMATION: ; APPLICANT: COOK, Anne L ; APPLICANT: CRAIG, Stewart ; APPLICANT: CLEMENTS, John M ; APPLICANT: EDWARDS, Richard M ; APPLICANT: BROWN, David ; TITLE OF INVENTION: PDGF-B ANALOGUES ; NUMBER OF SEQUENCES: 22 ; CORRESPONDENCE ADDRESS: ; ADDRESSEE: Allegretti & Witcoff, Ltd. ; STREET: 10 S. Wacker Dr. ; CITY: Chicago ; STATE: Illinois ; COUNTRY: USA ; ZIP: 60606 ; COMPUTER READABLE FORM: ; MEDIUM TYPE: Floppy disk ; COMPUTER: IBM PC compatible ; OPERATING SYSTEM: PC-DOS/MS-DOS ; SOFTWARE: PatentIn Release #1.0, Version #1.25 ; CURRENT APPLICATION DATA: ; APPLICATION NUMBER: US/08/094,079 ; FILING DATE: 24-JAN-1992 ; CLASSIFICATION: 435 ; PRIOR APPLICATION DATA: ; APPLICATION NUMBER: WO/PCT/GB92/00141 ; FILING DATE: 24-JAN-1992 ; PRIOR APPLICATION DATA:

APPLICATION NUMBER: CB 9101645 1
 FILING DATE: 24-JAN-1991
 ATTORNEY/AGENT INFORMATION:
 NAME: McDonnell, John J
 REGISTRATION NUMBER: 26, 949
 REFERENCE/DOCKET NUMBER: 93, 640
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 312-715-1000
 TELEFAX: 312-715-1234
 INFORMATION FOR SEQ ID NO: 3:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 109 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 FEATURE:
 NAME/KEY: protein
 LOCATION: 1..109
 OTHER INFORMATION: /note= "Truncated PDGF-B with ARG
 OTHER INFORMATION: 28 > SER (PDGF-B5)"
 US-08-094-079-3

Query Match 17.6%; Score 105; DB 1; Length 109;
 Best Local Similarity 33.3%; Pred. No. 0.00019;
 Matches 36; Conservative 12; Missmatches 34; Indels 26; Gaps 9;

Qy 2 LTEEVRLYSCTPRN -FSVSIUREELKRKDITF --WPGCLLVKRCGGNCACCLHNCNCQC 57
 Db 7 IAEPMIAECKTRTEFEELS-RSLIDRNANFLWPPCYEVQCSG --CC -NNRNVQC 60

Qy 58 VPSKVTKYHVQLRP ---KIGV -- RGLHSLTDVALEHHECDC 98
 Db 61 RPTQV-----QLRPVQVRKIEIVRKPIFKKAT -VTLEDHLACKC 99

RESULT 7
 US-08-094-0953-3
 Sequence 3, Application US/08804953
 Patent No. 5968778
 GENERAL INFORMATION:
 APPLICANT: Hoppe, Juergen
 APPLICANT: Weich, Herbert
 TITLE OF INVENTION: PDGF-A, PDGF-AA, PDGF-AB,
 TITLE OF INVENTION: PHARMACEUTICALS CONTAINING
 NUMBER OF SEQUENCES: 3
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Joseph T. Eisele
 ADDRESSEE: Kane, Dalsimer, Sullivan, Kurucz,
 STREET: 711 Third Avenue
 CITY: New York
 STATE: New York
 COUNTRY: U.S.A.
 ZIP: 10017-4059

COMPUTER READABLE FORM:
 MEDIUM TYPE: 3-1/2" DISKETTE
 COMPUTER: IBM-XT COMPATIBLE
 OPERATING SYSTEM: DOS 3.3;
 SOFTWARE: WORDPERFECT 5.0
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/804, 953
 FILING DATE: 24-FEB-1997
 CLASSIFICATION: 257
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 07/720, 771
 FILING DATE: 08/07/91
 APPLICATION NUMBER: PCT/EP90/00063
 FILING DATE: 01/11/90
 ATTORNEY/AGENT INFORMATION:

NAME: EISELE, JOSEPH T.
 REGISTRATION NUMBER: 25, 331
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (212) 687-6000
 TELEFAX: (212) 682-3485
 TELEX: (212) 426767
 INFORMATION FOR SEQ ID NO: 3:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 109 residues
 TYPE: amino acid
 STRANDEDNESS: N/A
 TOPOLOGY: Linear
 MOLECULE TYPE: Protein
 HYPOTHETICAL: Yes
 ANTI SENSE: No
 FRAGMENT TYPE:
 ORIGINAL SOURCE:
 ORGANISM: E. coli
 INDIVIDUAL ISOLATE:
 DEVELOPMENTAL STAGE:
 HAPLOTYPE:
 TISSUE TYPE:
 CELL TYPE:
 CELL LINE:
 ORGANELLE:
 IMMEDIATE SOURCE:
 CLONE: PDF-A
 FEATURE:
 OTHER INFORMATION:
 US-08-804-953-3

Query Match 17.6%; Score 105; DB 2; Length 109;
 Best Local Similarity 33.3%; Pred. No. 0.00019;
 Matches 36; Conservative 12; Missmatches 34; Indels 26; Gaps 9;

Qy 2 LTEEVRLYSCTPRN -FSVSIUREELKRKDITF --WPGCLLVKRCGGNCACCLHNCNCQC 57
 Db 7 IAEPMIAECKTRTEFEELS-RSLIDRNANFLWPPCYEVQCSG --CC -NNRNVQC 60

Qy 58 VPSKVTKYHVQLRP ---KIGV -- RGLHSLTDVALEHHECDC 98
 Db 61 RPTQV-----QLRPVQVRKIEIVRKPIFKKAT -VTLEDHLACKC 99

RESULT 8
 US-08-691-794-4
 Sequence 4, Application US/08691794
 Patent No. 605428
 GENERAL INFORMATION:
 APPLICANT: Keyt, Bruce A.
 APPLICANT: Nguyen, Francis H.
 APPLICANT: Ferrara, Napoleone
 APPLICANT: Cunningham, Brian C.
 APPLICANT: Wells, James A.
 APPLICANT: Li, Bing
 TITLE OF INVENTION: Variants of Vascular Endothelial Cell
 TITLE OF INVENTION: Growth Factor, Their Uses, and Processes for their
 TITLE OF INVENTION: Production
 NUMBER OF SEQUENCES: 45
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Fiehr, Hohbach, Test, Albritton & Herbert
 STREET: Four Embarcadero Center, Suite 3400
 CITY: San Francisco
 STATE: California
 COUNTRY: United States
 ZIP: 94111-4187
 PRIORITY INFORMATION:
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30
; APPLICATION NUMBER: US/08/691,794
; FILING DATE: 02-AUG-1996
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/002,827
; FILING DATE: 25-AUG-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/567,200
; FILING DATE: 05-DEC-1995
; ATTORNEY/AGENT INFORMATION:
; NAME: Dreger, Walter H.
; REFERENCE/DOCKET NUMBER: A-63758/WHD
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 781-1989
; TELEX: (415) 398-3249
; FAX: 910 277-299
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 109 amino acids
; TYPE: amino acid
; STRANDEDNESS: unknown
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; US-08-691-794-4

Query Match 17.6%; Score 105; DB 3; Length 109;
Best Local Similarity 33.3%; Prod. No. 0.00019;
Matches 36; Conservative 12; Mismatches 34; Indels 26; Gaps 9;

Qy 2 LTEEVRLYSCPRN - FSVSIREELKRTDTF - WPGCLLYKRCGGNCACCLHNCNEQC 57
Db 7 IAEPAMIAECKTRTEFEIS - RRLIDRTNAFLVNPWPCVEQRCSG --CC - NNRNVQC 60

Qy 58 VPSKVTKYHEVLQLRP --- KTG --- RGLHKSLTDVALHEECDC 98
Db 61 RPTQV ----- QLRPVQVRKIEIVRKKPIFKKAT - VTLEDHLACKC 99

RESULT 9
PCT-US91-02766-18

Query Match 17.6%; Score 105; DB 3; Length 109;
Best Local Similarity 33.3%; Prod. No. 0.00019;
Matches 36; Conservative 12; Mismatches 34; Indels 26; Gaps 9;

Qy 2 LTEEVRLYSCPRN - FSVSIREELKRTDTF - WPGCLLYKRCGGNCACCLHNCNEQC 57
Db 7 IAEPAMIAECKTRTEFEIS - RRLIDRTNAFLVNPWPCVEQRCSG --CC - NNRNVQC 60

Qy 58 VPSKVTKYHEVLQLRP --- KTG --- RGLHKSLTDVALHEECDC 98
Db 61 RPTQV ----- QLRPVQVRKIEIVRKKPIFKKAT - VTLEDHLACKC 99

RESULT 9
PCT-US91-02766-18

Query Match 17.6%; Score 105; DB 5; Length 109;
Best Local Similarity 33.3%; Prod. No. 0.00019;
Matches 36; Conservative 12; Mismatches 34; Indels 26; Gaps 9;

Qy 2 LTEEVRLYSCTPRN--FSVSIREEELKRTDTIF--WPGCLLVKRGGNCACCLHNCNECC 57
 Db 7 IAEPAMIAECKTRTEFEIS-RRLIDRANFLYWPPCVEQRSG--CC--NNRNYQC 60

Qy 5B VPSKVTKKYHEVLQLRP---KTGV--RGLHKSLSLTDVALEHHHECDC 98
 Db 61 RPTQV-----OLRPVQVRKIEIVRKPIFKKAT-VTLEDHLACKC 99

RESULT 11
 5498600-3

; Patent No. 5498600
 ; APPLICANT: MURRAY, MARK J.; KELLY, JAMES D.
 ; TITLE OF INVENTION: BIOLOGICALLY ACTIVE MOSAIC PROTEINS
 ; NUMBER OF SEQUENCES: 34

CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/319,776
 FILING DATE: 07-OCT-1994
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 936,149
 FILING DATE: 05-AUG-1992
 APPLICATION NUMBER: 319,239
 FILING DATE: 11-JUL-1989
 APPLICATION NUMBER: 941,970
 FILING DATE: 15-DEC-1986
 APPLICATION NUMBER: 896,485
 FILING DATE: 3-AUG-1986
 APPLICATION NUMBER: 705,175
 FILING DATE: 25-FEB-1985
 APPLICATION NUMBER: 660,496
 FILING DATE: 12-OCT-1984
 ; SEQ ID NO:3:
 LENGTH: 109

5498600-3

Query Match 17.6%; Score 105; DB 6; Length: 109;
 Best Local Similarity 33.3%; Pred. No. 0.00019;
 Matches 36; Conservative 12; Mismatches 34; Indels 26; Gaps 9;

RESULT 13
 5428135-2

; Patent No. 5428135
 ; APPLICANT: LIONS, DAVID E.; THOMASON, ARLEN R.
 ; TITLE OF INVENTION: PRODUCTION OF PLATELET-DERIVED GROWTH
 ; FACTOR B-CHAIN HETEROODIMERS FROM HIGH EXPRESSION HOST CELL SYSTEM
 ; NUMBER OF SEQUENCES: 10

CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/236,880
 FILING DATE: 29-APR-1994
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 623,671
 FILING DATE: 12-DEC-1990
 ; SEQ ID NO:2:
 LENGTH: 120

5428135-2

RESULT 12
 US-08-257-494D-1

; Sequence 1, Application US/08257494D
 ; Patent No. 5863832
 ; GENERAL INFORMATION:
 ; APPLICANT: Allergan, Inc.
 ; TITLE OF INVENTION: USE OF PLATELET
 ; TITLE OF INVENTION: DERIVED GROWTH FACTOR IN OPHTHALMIC
 ; NUMBER OF SEQUENCES: 6
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Allergan, Inc.
 ; STREET: 2505 Dupont Drive
 ; CITY: Irvine
 ; STATE: California
 ; COUNTRY: USA
 ; ZIP: 92715
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Diskette, 3.50 inch,
 ; COMPUTER: Apple Macintosh II
 ; OPERATING SYSTEM: Macintosh OS 7.1
 ; SOFTWARE: Microsoft Word 5.1a
 ; CURRENT APPLICATION DATA:

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; Sequence 2, Application US/08989251
; Patent No. 6017731
; GENERAL INFORMATION:
; APPLICANT: Tekamp-Olson, Patricia
; TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
; TITLE OF INVENTION: PROTEINS IN YEAST
; NUMBER OF SEQUENCES: 41
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP
; STREET: 3605 Glenwood Ave. Suite 310
; CITY: Raleigh
; STATE: NC
; COUNTRY: US
; ZIP: 27622
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/989,251
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Spauli, W. Murray
; REGISTRATION NUMBER: 32,943
; REFERENCE/DOCKET NUMBER: 5784-4
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 919 420 2202
; TELEFAX: 919 881 3175
; INFORMATION FOR SEQ ID NO: 25:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 146 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-989-251-25

Query Match 17.6%; Score 105; DB 3; Length 146;
Best Local Similarity 33.3%; Pred. No. 0.00027;
Matches 36; Conservative 12; Mismatches 34; Indels 26; Gaps 9;
Qy 2 LTEEVRLYSCTPRN--FSVSIREELKRTDTIF--WPGCLLYKRCGGNCACCLHNCNECQC 57
Db 44 IAEPAMIAECKTRTEVIS-RRLIDTNAFLVWPPCVERCSG--CC--NNRNVQC 97
Qy 58 VPSKVTKKYHEVLQLRP---KTGV--RGLHKSLTDVALEHHEECD 98
Db 98 RPTQV-----QLRPVQVRKIEIVRKPKIFKKAT-VTLEDHLACKC 136

Search completed: May 24, 2002, 09:58:38
Job time: 142 sec

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Query Match 17.6%; Score 105; DB 3; Length 146;
Best Local Similarity 33.3%; Pred. No. 0.00027;
Matches 36; Conservative 12; Mismatches 34; Indels 26; Gaps 9;
Qy 2 LTEEVRLYSCTPRN--FSVSIREELKRTDTIF--WPGCLLYKRCGGNCACCLHNCNECQC 57
Db 44 IAEPAMIAECKTRTEVIS-RRLIDTNAFLVWPPCVERCSG--CC--NNRNVQC 97
Qy 58 VPSKVTKKYHEVLQLRP---KTGV--RGLHKSLTDVALEHHEECD 98
Db 98 RPTQV-----QLRPVQVRKIEIVRKPKIFKKAT-VTLEDHLACKC 136

RESULT 15
US-08-989-251-25
; Sequence 25, Application US/08989251
; Patent No. 6017731
; GENERAL INFORMATION:
; APPLICANT: Tekamp-Olson, Patricia
; TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
; TITLE OF INVENTION: PROTEINS IN YEAST
; NUMBER OF SEQUENCES: 41
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP
; STREET: 3605 Glenwood Ave. Suite 310
; CITY: Raleigh
; STATE: NC
; COUNTRY: US
; ZIP: 27622
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30

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Result No.	Score	Query	Match	Length	DB	ID	Description
1	305.5	51.2	370	2	JC7591		spinal cord-derived g
2	370	2	JC7592		D49530		PDGF-related trans
3	114.5	51.2	148	2	JN0248		vascular endotheli
4	108	18.1	166	2	JN0735		mucin 2 precursor
5	108	18.1	198	2	IS1551		placental growth f
6	105	17.6	200	2	S08220		hypothetical prote
7	105	17.6	215	2	I51550		probable laminin a
8	105	17.6	226	2	PFHUG1		similar to gibbera
9	105	17.6	241	1	TWYSS		hypothetical prote
10	105	17.6	245	1	TYCTSS		laminin - Hydra vi
11	104.5	17.5	232	2	A11551		laminin alpha-1 ch
12	104	17.4	196	2	B28964		metallothionein -
13	104	17.4	197	2	S25096		metallothionein ty
14	104	17.4	197	1			protein F14N23.5 [
15	104	17.4	226	1			
16	102.5	17.2	133	2	B49530		
17	102.5	17.2	190	2	S51130		
18	102.5	17.2	196	2	A37359		
19	102.5	17.2	196	2	A48851		
20	101.5	17.0	120	2	A37187		
21	101.5	17.0	146	2	S57956		
22	101.5	17.0	190	2	B40080		
23	100.5	16.8	419	2	S62207		
24	97	16.2	188	2	JC4680		
25	97	16.2	207	2	JC4679		
26	96.5	16.2	190	2	A35987		
27	95.5	16.0	190	2	B44881		
28	95.5	16.0	214	2	A44881		
29	94	15.7	241	1	PFGMGB		
30	94	15.7	271	2	A25669		
31	88	14.7	128	2	I51295		
32	86	14.4	158	2	A56125		
33	83.5	14.0	3020	2	A43932		
34	80	13.4	149	2	A41236		
35	79	13.0	3672	2	T23433		
36	77.5	13.0	3704	2	T37316		
37	77	13.0	75.5	12.6	GB4522		
38	75.5	12.5	167	2	G96828		
39	74.5	12.5	72	12.1	S57894		
40	74	12.0	71.5	12.0	S18253		
41	71.5	11.9	42	11.9	JC2420		
42	71	11.9	43	11.9	T07076		
44	71	11.9	45	11.9	T07114		
45	71	11.9	71	11.9	D86236		

ALIGNMENTS

RESULT 1									
QC7591	spinal cord-derived growth factor-B precursor - human	C;Species: Homo sapiens (man)	C;Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 24-Aug-2001	C;Accession: JC7591	R;Hamada, T.; U-i-Tei, K.; Imaki, J.; Miyata, Y.	Biochem. Biophys. Res. Commun. 280, 733-737, 2001	A;Title: Molecular cloning of SCDGF/B, a novel growth factor homologous to SCDGF/PDGF	A;Reference number: JC7591; MUID:21092670; PMID:11162582	A;Molecule type: DNA
		A;Residues: 1-370 <R&M>							A;Cross-references: DDBJ:AB033832
		C;Genetics:							C;Genetics:
		A;Gene: scdgf-B							F:1-17/Domain: secretory signal sequence #status predicted <SIG>
		F:18-370/Region: spinal cord-derived growth factor-B #status predicted <MAT>							F:18-370/Region: CUB domain #status predicted
		F:52-170/Region: homologous to platelet-derived growth factor/vascular endothelial 9							F:272-370/Region: homologous to platelet-derived growth factor/vascular endothelial 9
		F:294-308/Region: conserved motif #status predicted							F:294-308/Region: conserved motif #status predicted

Total number of hits satisfying chosen parameters: 283138

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_71.*
1: Pir1;*
2: Pir2;*
3: Pir3;*
4: Pir4;*

Pred. No. is the number of results predicted by chance to have a a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

%

Query

Match

Length

DB

ID

Description

Qy	1	51.28;	Score 305.5;	Best Local Similarity 52.9%;	Matches 54;	Conservative 13;	Mismatches 32;	Indels 3;	Gaps 1;
Qy	2	1.2E-05	Score 305.5;	Best Local Similarity 52.9%;	Matches 54;	Conservative 13;	Mismatches 32;	Indels 3;	Gaps 1;
Db	263	LNDDAKRYSTCPRNYSVNTIREELKANVVFPRCLLIVQRGGNGCGTWNRSCTCNSGK	Score 305.5;	Best Local Similarity 52.9%;	Matches 54;	Conservative 13;	Mismatches 32;	Indels 3;	Gaps 1;
Qy	62	VTKYKHEVLQLRP--KTGYRGLHKSLTDYALEHHECDVCV	Score 305.5;	Best Local Similarity 52.9%;	Matches 54;	Conservative 13;	Mismatches 32;	Indels 3;	Gaps 1;
Db	323	TVKTYKHEVLQFEPGHTKRRGAKTMALVDIQLDHHERCDCIC	Score 305.5;	Best Local Similarity 52.9%;	Matches 54;	Conservative 13;	Mismatches 32;	Indels 3;	Gaps 1;

RESULT 2									
JC7592	spinal cord-derived growth factor-B precursor - rat	C;Species: Rattus norvegicus (Norway rat)	C;Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 24-Aug-2001	C;Accession: JC7592	R;Hamada, T.; U-i-Tei, K.; Imaki, J.; Miyata, Y.	Biochem. Biophys. Res. Commun. 280, 733-737, 2001	A;Title: Molecular cloning of SCDGF/B, a novel growth factor homologous to SCDGF/PDGF	A;Reference number: JC7591; MUID:21092670; PMID:11162582	A;Molecule type: DNA
									A;Cross-references: DDBJ:AB033832
									C;Genetics:
									F:1-370 <R&M>
									C;Genetics:

A;Molecule type: mRNA

A;Residues: 1-370 <R&M>

A;Cross-references: DDBJ:AB052170

C;Genetics:

RESULT 7

Platelet-derived growth factor chain A precursor - African clawed frog

C;Species: *Xenopus laevis* (African clawed frog)

C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 16-Jul-1999

A;Accession: S08220

R;Bejcek, B.E.; Li, D.Y.; Deuel, T.F.

A;Status: translation not shown

A;Molecule type: mRNA

A;Residues: 1-215 <BEJ>

A;Cross references: EMBL:X17545; PIDN:964973; PIDN:CAA35583.1; PID:964974

C;Superfamily: platelet-derived growth factor

C;Keywords: alternative splicing; growth factor

F;1-22/Domain: signal sequence #status predicted <SIG>

F;F;23-91/Domain: propeptide #status predicted <PRO>

F;92-215/Product: platelet-derived growth factor chain A #status predicted <MAT>

Query Match 17.6% Score 105; DB 2; Length 215;

Best Local Similarity 31.4%; Pred. No. 0_0_0038;

Matches 33; Conservative 14; Mismatches 32; Indels 26; Gaps 8;

Qy 11 CTPRNFSVSI-REELKRTDTIF--WPGCLLVKRCGGNCACCLHNCNECQYPSKVTKKYH 67

Db 101 CKTRVIEIPRSQIDPTSANFLIWPCCVEVRCTG--CC-NTSSVKCOPFSRI--HH 152

Qy 68 -----EVQLRPTKGVRGLRKSLTDVALEHHERECDCVCRGST 104

Db 153 RSVKVAKVEYVRKKPK----LKEVL--VRLEEHLECTCTANSNS 190

RESULT 8

platelet-derived growth factor A chain long form precursor - African clawed frog

C;Species: *Xenopus laevis* (African clawed frog)

C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 16-Jul-1999

A;Accession: I51550

R;Mercola, M.; Melton, D.A.; Stiles, C.D.

Science 241, 1223-1225, 1988

A;Title: Platelet-derived growth factor A chain is maternally encoded in *Xenopus* embryos

A;Reference number: I51550; MUID: 88321676

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Molecule type: mRNA

A;Residues: 1-226 <MER>

A;Cross references: GB:M23237; PIDN:9214648; PIDN:AAA49927.1; PID:9214649

C;Superfamily: platelet-derived growth factor

Query Match 17.6% Score 105; DB 2; Length 226;

Best Local Similarity 31.4%; Pred. No. 0_0039;

Matches 33; Conservative 14; Mismatches 32; Indels 26; Gaps 8;

Qy 11 CTPRNFSVSI-REELKRTDTIF--WPGCLLVKRCGGNCACCLHNCNECQYPSKVTKKYH 67

Db 101 CKTRVIEIPRSQIDPTSANFLIWPCCVEVRCTG--CC-NTSSVKCOPFSRI--HH 152

Qy 68 -----EVQLRPTKGVRGLRKSLTDVALEHHERECDCVCRGST 104

Db 153 RSVKVAKVEYVRKKPK----LKEVL--VRLEEHLECTCTANSNS 190

RESULT 9

PFHg2

Platelet-derived growth factor chain B precursor [validated] - human

N;Alternate names: PDGF-B-chain; PDGF-II; PDGF-related transforming protein (sis

C;Species: *Homo sapiens* (man)

Mol. Cell. Biol.	8	284-292	1988
A;Title:	The 5' untranslated sequence of the c-sis/platelet-derived growth factor 2 transactivator gene		
A;Reference number:	157635; MUID: 88094398		
A;Accession:	I57635		
A;Status:	translated from GB/EMBL/DDJB		
A;Molecule type: DNA			
A;Residues: 1-20 <RA02>			
R;Cross-references: GB: M19719; NID: G189727; PIDN: AAA60349.1; PID: 9553608			
R;Ratner, L.; Josephs, S.F.; Jarrett, R.; Reitz, M.S.			
Nucleic Acids Res. 13, 5007-5018, 1985			
A;Title: Nucleotide sequence of transforming human c-sis cDNA clones with homology to platelet-derived growth factor receptor genes			
A;Reference number: I37266; MUID: 85369623			
A;Accession: I37266			
A;Status: translated from GB/EMBL/DDJB			
A;Molecule type: mRNA			
A;Residues: 1-241 <RA1>			
R;Cross-references: EMBL:X02744; NID: G30246; PIDN: CAA26524.1; PID: 930247			
R;Johnson, A.; Heldin, C.H.; Westermark, B.; Deuel, T.F.; Huang, J.S.; Seftor, R.P.H.; Onnenkirk, C.J.; Jansen, H.J.; de Jong, A.; Bloemers, H.P.J.			
Nucleic Acids Res. 23, 2815-2822, 1995			
A;Title: The c-sis gene encodes a precursor of the B chain of platelet-derived growth factor receptor			
A;Reference number: A55030; MUID: 84236121			
A;Accession: A55030			
A;Status: preliminary			
A;Molecule type: DNA			
A;Residues: 'SLSL', 17-20, 'RQ', 22-241 <JOH>			
R;Cross-references: GB: X00556; EMBL: X00559; GB: X00560; GB: X00561; GB: X00562			
R;Dirks, R.P.H.; Onnenkirk, C.J.; Jansen, H.J.; de Jong, A.; Bloemers, H.P.J.			
Nucleic Acids Res. 23, 2815-2822, 1995			
A;Title: A novel human c-sis mRNA species is transcribed from a promoter in c-sis intron 1			
A;Reference number: S58382; MUID: 95388493			
A;Accession: S58382			
A;Status: preliminary			
A;Molecule type: mRNA			
A;Residues: 'MFIML', 22-200 <DIR>			
R;Cook, A.L.; Kirwin, P.M.; Craig, S.; Bawden, L.J.; Green, D.R.; Price, M.J.; Richardson, J. 281, 57-65, 1992			
Biochem. J. 281, 57-65, 1992			
A;Title: Purification and analysis of proteinase-resistant mutants of recombinant platelet-derived growth factor			
A;Reference number: I38108; MUID: 92117992			
A;Accession: I38108			
A;Status: preliminary; translated from GB/EMBL/DDJB			
A;Molecule type: mRNA			
A;Residues: 'M', 82-241 <COO>			
R;Cross-references: EMBL: X63966; NID: G311378; PIDN: CAA5383.1; PID: 935377			
A;Note: mutagenized recombinant sequence			
C;Comment: Platelet-derived growth factor, a potent mitogen for cells of mesenchymal origin			
C;Genetics:			
A;Gene: GDB:PDGFB			
A;Cross-references: GDB:120709; OMIM:190040			
A;Map position: 22q12.3-22q13.1			
A;Introns: 57/3; 94/1; 192/3; 241/1			
C;Complex: homodimer; heterodimer (see PIR:PFHUG1)			
C;Superfamily: Platelet-derived growth factor			
C;Keywords: growth factor; mitogen			
F;1-20/Domain: signal sequence #status predicted <SIG>			
F;21-87/Domain: amino-terminal propeptide #status predicted <PRO>			
F;82-190/Product: platelet-derived growth factor chain B #status experimental <MAT>			
F;159-163/Region: receptor binding #status predicted			
F;191-241/Domain: carboxy-terminal propeptide #status predicted <CTP>			
F;97-141/130-178,134-180/disulfide bonds: #status experimental			
F;124/disulfide bonds: interchain (to 133 in homodimeric form) #status experimental			
F;124/disulfide bonds: interchain (to chain A-132 in heterodimeric form) #status predicted			
F;133/disulfide bonds: interchain (to 124 in homodimeric form) #status experimental			
F;133/disulfide bonds: interchain (to chain A-124 in heterodimeric form) #status predicted			
Query Match	17.6%	Score 105;	DB 1;
Best Local Similarity	33.3%	Pred. No. 0.042;	Length 241;
Matches 36;	Conservative 12;	Mismatches 34;	Indels 26;
Gaps 9;			
Qy 2 LTEEVRLYSCTPRN - FSVSIREELKRTDTLF - WPGCLVYKRCGGNCACCLHNNECCQ 57			
Db 88 IAEPAMIAECKTRTEFEIS - RRLDIDRTANFLWVPPCVCVQRCSG - CC - NNTRNVQ 141			

A; Molecule type: DNA
 A; Residues: 1-165,183-232 <T11>
 A; Cross-references: GB: M63971; GB: M63973; GB: M63975; GB: M63976; GE
 A; Accession: BA0454
 A; Molecule type: DNA
 A; Residues: 1-140, 'N', 183-232 <T12>
 A; Cross-references: GB: M63971; GB: M63972; GB: M63973; GB: M63974; GB: M63975; GB: M63977; GB
 A; Accession: C40454
 A; Molecule type: DNA
 A; Residues: 1-141, 227-232 <T13>
 A; Cross-references: GB: M63972; GB: M63973; GB: M63974; GB: M63975; GB: M63978
 R; Keck, P.J.; Hauser, S.D.; Krivi, G.; Sanzo, K.; Warren, T.; Feder, J.; Connolly, D.T.
 R; Title: Vascular permeability factor, an endothelial cell mitogen related to PDGF.
 A; Reference number: A40079; MUID: 90069609
 A; Accession: AA0079
 A; Status: not compared with conceptual translation
 A; Molecule type: mRNA.
 A; Residues: 1-165, 183-232 <KEC>
 A; Cross-references: GB: M27281; NID: 9340300; PIDN: AAA36807.1; PID: g340301
 R; Leung, D.W.; Cachianes, G.; Kuang, W.J.; Goeddel, D.V.; Ferrara, N.
 R; Title: Vascular endothelial growth factor is a secreted angiogenic mitogen.
 A; Reference number: A40080; MUID: 90069608
 A; Status: not compared with conceptual translation
 A; Molecule type: mRNA.
 A; Residues: 1-140, 'N', 183-232 <LEU>
 A; Cross-references: GB: M32977; NID: 9181970; PIDN: AAA35789.1; PID: g181971
 R; Weindel, K.; Marme, D.; Weich, H.A.
 R; Title: AIDS-associated Kaposi's sarcoma cells in culture express vascular endothelial
 A; Reference number: JQ1463; MUID: 92231879
 A; Accession: JQ1463
 A; Molecule type: mRNA.
 A; Residues: 1-140, 'N', 183-232 <WEI>
 A; Experimental source: AIDS-Kaposi's sarcoma cell
 R; Connolly, D.T.; Olander, J.V.; Heuvelman, D.; Nelson, R.; Monsell, R.; Siegel, N.; Hay
 J. Biol. Chem., 264, 20017-20024, 1989
 A; Title: Human vascular permeability factor. Isolation from U937 cells.
 A; Reference number: A34492; MUID: 90062112
 A; Accession: A34492
 A; Molecule type: protein
 A; Cross-references: GDB: 132244; OMIM: 192240
 A; Map position: 6p11.6p12
 A; Function: promotes fluid and protein leakage from blood vessels
 C; Keywords: alternative splicing; angiogenesis; dimer; disulfide bond; extracellular pro
 F; 1-22/Product: vascular endothelial growth factor 206 precursor #status predicted <V20
 F; 1-165,183-232/Product: vascular endothelial growth factor 189 precursor #status Predict
 F; 1-141, 227-232/Product: vascular endothelial growth factor 121 precursor #status Predict
 F; 1-26/Domain: signal sequence #status predicted <SIG>
 F; 101/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match Score 17.5%; Best Local Similarity 27.0%; Matches 24; Conservative 21; Pred. No. 0 0045; Indels 33; Gaps 4;

Db 107 MRIKPHQG----QHIGEMSFQHINKCEC 130
 RESULT 12
 B28964 platelet-derived growth factor chain A precursor splice form 2 - human
 C; Species: Homo sapiens (man)
 C; Date: 30-Jun-1989 #sequence_revision 30-Jun-1989 #text_change 16-Jul-1999
 C; Accession: B28964
 R; Bonthron, D.T.; Morton, C.C.; Orkin, S.H.; Collins, T.
 Proc. Natl. Acad. Sci. U.S.A. 85, 1492-1496, 1988
 A; Title: Platelet-derived growth factor A chain: gene structure, chromosomal location
 A; Reference number: A28964; MUID: 88144463
 A; Accession: B28964
 A; Molecule type: DNA
 A; Residues: 1-196 <BON>
 A; Cross-references: GB: M21571; GB: J03638; GB: M19985; GB: M19986; GB: M19987;
 R; Bonthron, D.; Collins, T.; Grzeschik, K.H.; van Roy, N.; Speleman, F.
 Genomics 13, 257-263, 1992
 A; Title: Platelet-derived growth factor A chain: confirmation of localization of PDGF
 A; Reference number: A42002; MUID: 92307656
 A; Accession: B42002
 A; Status: preliminary; not compared with conceptual translation
 A; Molecule type: DNA
 A; Residues: 152-196 <BO2>
 R; Rorsman, P.; Bywater, M.; Knott, T.J.; Betsholtz, C.
 Mol. Cell. Biol. 8, 571-577, 1988
 A; Title: Structural characterization of the human platelet-derived growth factor A-chain
 A; Reference number: A28122; MUID: 88174638
 A; Accession: B28122
 A; Molecule type: mRNA
 A; Residues: 1-63, 'TRD', 67-196 <ROR>
 A; Cross-references: GB: M21488
 A; Note: the authors translated the codon ACA for residue 64 as Arg, CGT for residue 6
 C; Comment: Exon 6 is spliced out of this variant splice form. For the major splice form
 A; Genetics:
 A; Gene: GDB: PDGFA
 A; Cross-references: GDB: 120266; OMIM: 173430
 A; Map reference: 7P22-7P22
 C; Superfamily: platelet-derived growth factor
 C; Keywords: alternative splicing; glycoprotein; growth factor; mitogen; platelet
 Query Match Score 17.4%; Best Local Similarity 34.0%; Matches 12; Indels 16; Gaps 6;
 A; Map:保守性 32; 不保守性 12; 错配数 34;
 C; Comment: The authors translated the codon ACA for residue 64 as Arg, CGT for residue 6
 C; Comment: Exon 6 is spliced out of this variant splice form. For the major splice form
 A; Genetics:
 A; Gene: GDB: PDGFA
 A; Cross-references: GDB: 120266; OMIM: 173430
 A; Map reference: 7P22-7P22
 C; Superfamily: platelet-derived growth factor
 C; Keywords: alternative splicing; glycoprotein; growth factor; mitogen; platelet
 Query Match Score 17.4%; Best Local Similarity 34.0%; Matches 12; Indels 16; Gaps 6;
 Db 96 CKTRPVYIEIPRSQVDPTSANFLINPPCVKRCTG---CC--NTSSVKCOPSRVYHRSV 150
 Qy 11 CTPRNFSVST-REELKRDTIF--WPGCLLYKRCOGNCACCLHNNEQCQVPSKY--TK 64
 Db 65 KYHEVILQLRPKTGVRLHKSLTDVALEHHEECDC 98
 Qy 151 KVAKVEYVRKKPKLKEV----QVRLEHLECAC 179
 Db 151 KVAKVEYVRKKPKLKEV----QVRLEHLECAC 179
 RESULT 13
 S25096 platelet-derived growth factor chain A precursor - rat (fragment)
 C; Species: Rattus norvegicus (Norway rat)
 C; Date: 07-Apr-1994 #sequence_revision 07-Apr-1994 #text_change 16-Jul-1999
 C; Accession: S25096; S33764
 A; Description: Cross-species conservation in sequence and function of PDGF ligands an
 R; Herren, B.; Weyer, K.A.; Loetscher, P.; Pech, M.
 R; Submitted to the EMBL Data Library, July 1992
 A; Cross-references: EMBL: 214120; NID: 956865; PIDN: CAA70490.1; PID: 956866
 R; Herren, B.; Weyer, K.A.; Rouge, M.; Loetscher, P.; Pech, M.
 Biochim. Biophys. Acta 1173, 294-302, 1993

Query Match Score 17.5%; Best Local Similarity 27.0%; Matches 24; Conservative 21; Pred. No. 0 0045; Indels 33; Gaps 4;

Db 11 CTPRNFSVSTFEEEL-KRTDTTFWPGLCLVKRCGGNCACCLHNNEQCQVPSKVTKKYHEV 69
 Db 52 CHPTEFLVDFQEYDEIEFKPSCVPLMRCGG--CC--NDEGLEYCVPTEESNITMQI 106
 Qy 70 LQLRPKTGVRLHKSLTDVALEHHECDC 98

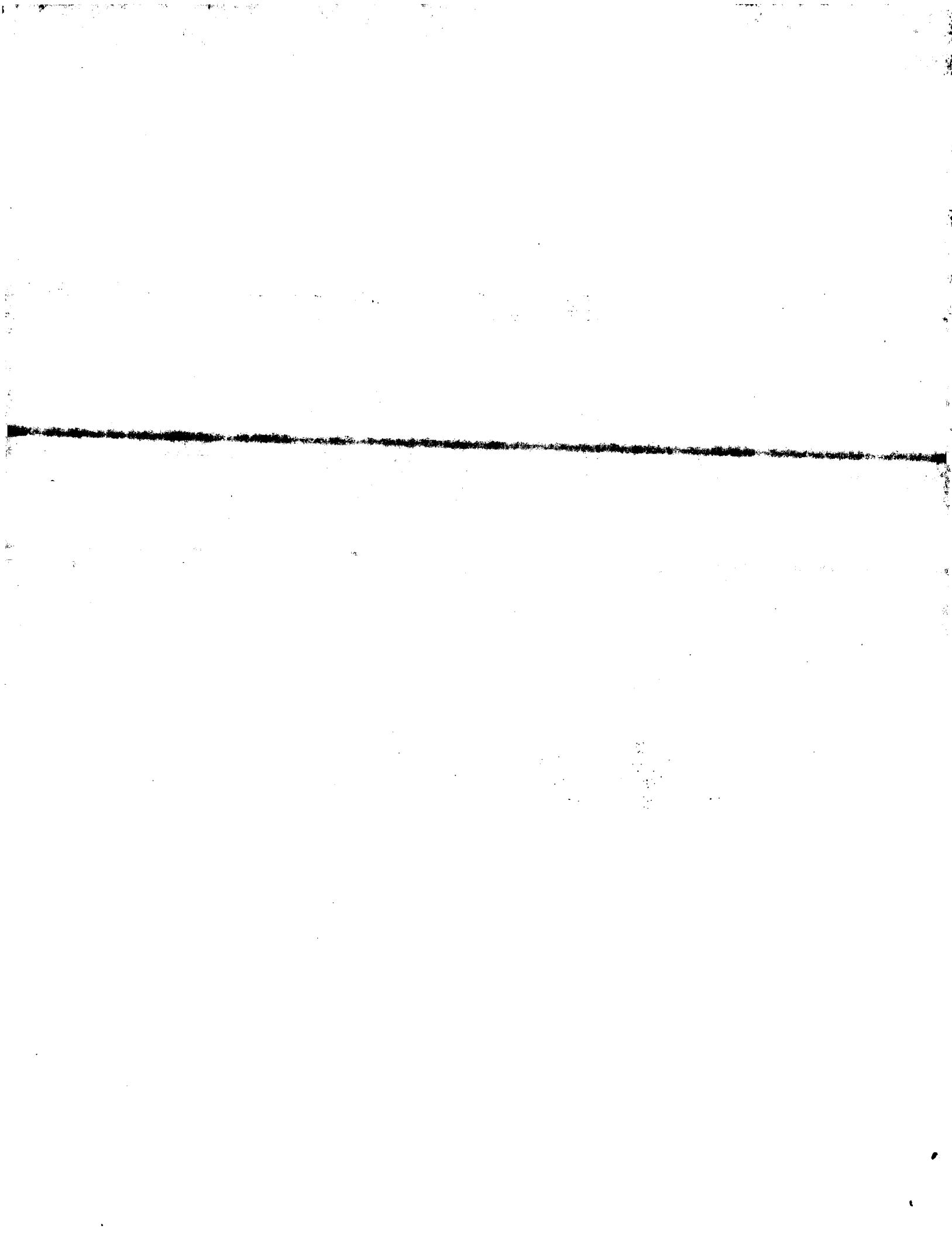
Fri May 24 11:24:54 2002

us-09-695-121-2_copy_240_345.rpr

Page 7

Db 127 RPTQV-----QLRPVQVRKIEIVRKPPFKAT-VTLEDHLACKC 165

Search completed: May 24, 2002, 09:59:01
Job time: 145 sec



Result No.	Score	Query	Match	Length	DB	ID	Description
1	117.5	19.7	326	1	VEGD_RAT	035251	rattus norvegicus (Rat).
2	115.5	19.3	358	1	VEGD_MOUSE	P97946	mus musculus
3	114.5	19.2	148	1	VEGH_ORFN7	P52585	orf virus (
4	111.5	18.7	354	1	VEGD_HUMAN	Q43915	homo sapiens
5	108.5	18.2	164	1	VEGA_CAVPO	P26617	cavia porcellus
6	108	18.1	213	1	PDGA_RABIT	P34007	oryctolagus cuniculus
7	105	17.6	207	1	VEGB_HUMAN	P49765	homo sapiens
8	105	17.6	226	1	PDGA_XENLA	P13698	xenopus laevis
9	105	17.6	241	1	PDGB_HUMAN	P01127	homo sapiens
10	105	17.6	245	1	PDGB_FELCA	P12919	felis silvestris
11	104.5	17.5	232	1	VEGA_HUMAN	P15692	homo sapiens
12	104	17.4	204	1	PDGA_RAT	P28576	rattus norvegicus (Rat).
13	104	17.4	211	1	PDGA_HUMAN	P04085	homo sapiens
14	104	17.4	211	1	PDGA_MOUSE	P20033	mus musculus
15	104	17.4	226	1	TSIS_SMSAV	P01128	simian sarcoidosis virus
16	102.5	17.2	133	1	VEGH_ORFN2	P52584	orf virus (
17	102.5	17.2	190	1	VEGA_PIG	P49151	sus scrofa
18	102.5	17.2	214	1	VEGA_CANFA	Q9xs49	canis familiaris
19	102	17.1	207	1	VEGB_BOVIN	P50412	bos taurus
20	101.5	17.0	146	1	VEGA_SHEEP	P15691	ovis aries
21	101.5	17.0	190	1	VEGA_BOVIN	P49767	bos taurus
22	100.5	16.8	419	1	VEGC_HUMAN	P97953	homo sapiens
23	99.5	16.7	415	1	VEGC_MOUSE	Q9KRO	equus caballus
24	97.5	16.3	190	1	VEGA_HORSE	P49766	mus musculus
25	97	16.2	207	1	VEGB_MOUSE	P16612	rattus norvegicus
26	96.5	16.2	214	1	VEGA RAT	Q99ps1	mesocricetus auratus
27	95.5	16.0	190	1	VEGA_MESAU	P00731	mus musculus
28	95.5	16.0	214	1	VEGA_MOUSE	Q35485	rattus norvegicus
29	94	15.7	135	1	VEGB RAT	P05028	rattus norvegicus
30	94	15.7	221	1	PDGB RAT	P31240	mus musculus
31	94	15.7	241	1	PDGB MOUSE	P52582	gallus gallus
32	88.5	14.8	216	1	VEGA CHICK	P95229	ovis aries
33	87	14.6	241	1	PDGB SHEEP	-	-

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5
Searched: 105224 seqs, 38719550 residues
Total number of hits satisfying chosen parameters: 105224
Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_40:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query	Match	Length	DB	ID	Description
1	104	9	8	8			
2	104	9	8	8			
3	104	9	8	8			
4	104	9	8	8			
5	104	9	8	8			
6	104	9	8	8			
7	105	9	8	8			
8	105	9	8	8			
9	105	9	8	8			
10	105	9	8	8			
11	104.5	9	8	8			
12	104	9	8	8			
13	104	9	8	8			
14	104	9	8	8			
15	104	9	8	8			
16	102.5	9	8	8			
17	102.5	9	8	8			
18	102.5	9	8	8			
19	102	9	8	8			
20	101.5	9	8	8			
21	101.5	9	8	8			
22	100.5	9	8	8			
23	99.5	9	8	8			
24	97.5	9	8	8			
25	97	9	8	8			
26	96.5	9	8	8			
27	95.5	9	8	8			
28	95.5	9	8	8			
29	94	9	8	8			
30	94	9	8	8			
31	94	9	8	8			
32	88.5	8	8	8			
33	87	8	8	8			

ALIGNMENTS

RESULT 1
VEGD_RAT STANDARD; PRT; 326 AA.
ID VEGD_RAT
AC O35251;
DT 01-MAR-2002 (Rel. 41, Created)
DT 01-MAR-2002 (Rel. 41, Last sequence update)
DT 01-MAR-2002 (Rel. 41, Last annotation update)
DE Vascular endothelial growth factor D precursor (VEGF-D) (c-fos induced growth factor) (FIGF)
GN FIGF OR VEGFD
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognath; Muridae; Murinae; Rattus.
OX NCBI_TaxId=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-Sprague-Dawley;
RA Yamada Y., Hirata Y., Nezu J., Shimane M.;
RL Submitted (JUL-1997) to the EMBL/GenBank/DDBJ databases.
CC -I- FUNCTION: Growth factor active in angiogenesis, lymphangiogenesis and endothelial cell growth, stimulating their proliferation and migration and also has effects on the permeability of blood vessels. May function in the formation of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-3 (Flt4) receptor (By similarity).
CC -I- SUBUNIT: Homodimer: Secreted (By similarity).
CC -I- SUBCELLULAR LOCATION: Secreted (By similarity).
CC -I- PDUM: Undergoes a complex proteolytic maturation which generates a variety of processed secreted forms with increased activity toward VEGFR-3 and VEGFR-2. VEGF-D first forms an antiparallel homodimer linked by disulfide bonds before secretion. The fully processed VEGF-D is composed mostly of two VEGF homology domains (VHDs) bound by non-covalent interactions (By similarity).
CC -I- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation at the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see <http://www.isb-sib.ch/announce/> or send an email to license@isb-sib.ch).
CC EMBL AF014827; AAB66557.1; -.
DR HSSP: P15692; 1VPP.
DR InterPro: IPR00072; PDGF.
DR Pfam: PF00341; PDGF.
DR PRODOM: PDD001629; PDGF; 1.
DR SMART: SM00111; PDGF; 1.
DR PROSITE: PS00249; PDGF; 1.
DR PROSITE: PS50278; PDGF; 2; 1.
DR KW Growth factor; Glycoprotein; Signaling; Receptor.
KW Cleavage on pair of basic residues; Multigene family.
FT SIGNAL 1
FT PROPEP 22
FT PENTHAL 93

FT CHAIN 94 VASCULAR ENDOTHELIAL GROWTH FACTOR D.
 FT PROPEP 211 4 X 16 AA REPEATS OF C-X(10)-C-X-C-
 FT DOMAIN 227 326 X(1,3)-C.
 FT REPEAT 227 242 1. (APPROXIMATE).
 FT REPEAT 263 278 2.
 FT REPEAT 282 298 3.
 FT REPEAT 306 317 4. (INCOMPLETE).
 FT DISULFID 116 317 INTRACHAIN (BY SIMILARITY).
 FT DISULFID 147 158 INTRACHAIN (BY SIMILARITY).
 FT DISULFID 151 194 INTRACHAIN (BY SIMILARITY).
 FT DISULFID 141 141 INTERCHAIN (BY SIMILARITY).
 FT DISULFID 150 150 INTERCHAIN (BY SIMILARITY).
 FT CARBOHYD 160 160 GLCNAC. . .) (POTENTIAL).
 FT CARBOHYD 190 190 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT CARBOHYD 292 292 N-LINKED (GLCNAC. . .) (POTENTIAL).
 SQ SEQUENCE 326 AA: 37112 MW: 12616FA373596C00 CRC64;

Query Match Score 19.7%; Best Local Similarity 33.0%; Matches 35; Conservative 15; Mismatches 41; Indels 15; Gaps 6;
 ID P97946; STANDARD; PRT; 358 AA.
 DT 01-MAR-2002 (Rel. 41, Created)
 DT 01-MAR-2002 (Rel. 41, Last sequence update)
 DT 01-MAR-2002 (Rel. 41, Last annotation update)
 DE Vascular endothelial growth factor D precursor (VEGF-D) (c-fos induced growth factor) (FIGF).
 GN FIGF OR VEGD.
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Murinae; Mus.
 OC NCBI TAXID=10090;
 RN [1] RP SEQUENCE FROM N.A.
 RX MEDLINE#-97030254; PUBMED#-8876195;
 RA "Identification of a c-fos-induced gene that is related to the platelet-derived growth factor/vascular endothelial growth factor family";
 RT Proc. Natl. Acad. Sci. U.S.A. 93:11675-11680(1996).
 RN [2] RP SEQUENCE FROM N.A.

RESULT 2
 VEGD_MOUSE STANDARD; PRT; 358 AA.
 ID P97946; STANDARD; PRT; 358 AA.
 DT 01-MAR-2002 (Rel. 41, Created)
 DT 01-MAR-2002 (Rel. 41, Last sequence update)
 DT 01-MAR-2002 (Rel. 41, Last annotation update)
 DE Vascular endothelial growth factor D precursor (VEGF-D) (c-fos induced growth factor) (FIGF).
 GN FIGF OR VEGD.
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Murinae; Mus.
 OC NCBI TAXID=10090;
 RN [1] RP SEQUENCE FROM N.A.
 RX MEDLINE#-97030254; PUBMED#-8876195;
 RA Yamada Y., Nezu J.-I., Shimane M., Hirata Y.;
 RT "Molecular cloning of a novel vascular endothelial growth factor, VEGF-D";
 RT Genomics 42:483-488(1997).
 RN [3] RP DEVELOPMENTAL STAGE.
 RX MEDLINE#-98288130; PUBMED#-9622638;
 RA Avantaggiato V., Orlando M., Campora D., Oliviero S., Simeone A.;
 RT "Embryonic expression pattern of the murine flgf gene, a growth factor belonging to platelet-derived growth factor/vascular endothelial growth factor family";
 RT Mech. Dev. 73:221-224(1998).
 RN [4] RP RECEPTOR SPECIFICITY.

RX MEDLINE#-21276411; PubMed#-11279005;
 RA Baldwin M.E., Catimini B., Nice E.C., Roufaill S., Hall N.E., Karkkainen M.J., Alitalo K., Stacker S.A., Achen M.G.;
 RA Stevens K.L.; "The specificity of receptor binding by vascular endothelial growth factor-D is different in mouse and man.";
 RT J. Biol. Chem. 276:19166-19171(2001).
 CC -!- FUNCTION: Growth factor active in angiogenesis, lymphangiogenesis and endothelial cell growth, stimulating their proliferation and migration and also has effects on the permeability of blood vessels. May function in the formation of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-3 (Flt4) receptor.
 CC -!- SUBUNIT: Homodimer; non-covalent and antiparallel.
 CC -!- SUBCELLULAR LOCATION: Secreted.
 CC -!- TISSUE SPECIFICITY: Highly expressed in fetal and adult lung.
 CC -!- DEVELOPMENTAL STAGE: Expressed in a dynamic pattern in several body structures and organs of the embryo such as limb buds, acoustic ganglion, teeth, heart, anterior pituitary as well as lung and kidney mesenchyme, liver, derma, and periosteum of the vertebral column.
 CC -!- INDUCTION: By the transcription factor c-fos.
 CC -!- PTM: Undergoes a complex proteolytic maturation which generates a variety of processed secreted forms with increased activity toward VEGFR-3 and VEGFR-2. VEGF-D first form in anti-parallel homodimer linked by disulfide bonds before secretion. The fully processed VEGF-D is composed mostly of two VEGF homology domains (VHDs) bound by non covalent interactions (By similarity).
 CC -!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.

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CC DR X99572; CAA67892; 1. ENSEMBL: D89628; BA14002; 1; -. DR HSSP; P15592; 1VPP.
 CC DR MGDB; MG1:108037; Figf.
 CC DR InterPro; IPR000072; PDGF.
 CC DR PFAM; PF00341; PDGF.
 CC DR PRODOM; PD001629; PDGF; 1.
 CC DR SMART; SM00141; PDGF; 1.
 CC DR PROSITE; PS00249; PDGF; 1.
 CC DR PROSITE; PS00278; PDGF; 2.
 CC DR PROSITE; PS00278; PDGF; 1.
 CC DR MITOGEN; Growth factor; Glycoprotein; Signal; Repeat; SIGNAL 1 KW Cleavage on pair of basic residues; Multigene family.
 CC DR REPEAT 227 21 POTENTIAL.
 CC FT PROPEP 263 212 POTENTIAL.
 CC FT REPEAT 282 298 3.
 CC FT PROPEP 306 323 4.
 CC FT DISULFID 116 116 INTRACHAIN (BY SIMILARITY).
 CC FT PROPEP 211 358 4.
 CC FT DOMAIN 227 323 4 X 16 AA REPEATS OF C-X(10)-C-X-C- X(1,3)-C.
 CC FT REPEAT 227 242 1 APPROXIMATE .
 CC FT REPEAT 263 278 2.
 CC FT PROPEP 282 298 3.
 CC FT REPEAT 306 323 4.
 CC FT DISULFID 147 194 INTRACHAIN (BY SIMILARITY).
 CC FT PROPEP 211 358 4.
 CC FT DISULFID 151 196 INTRACHAIN (BY SIMILARITY).
 CC FT DISULFID 141 141 INTRACHAIN (BY SIMILARITY).
 CC FT DISULFID 150 150 INTRACHAIN (BY SIMILARITY).
 CC FT CARBOHYD 160 160 INTRACHAIN (BY SIMILARITY).
 CC FT CARBOHYD 190 190 N-LINKED (GLCNAC. . .) (POTENTIAL).
 CC FT CARBOHYD 292 292 N-LINKED (GLCNAC. . .) (POTENTIAL).
 CC SQ SEQUENCE 358 AA; 40908 MW; 6636B17FB07037C CRC64;

Query Match Score 115.5%; DB 1; Length 358;
 Best Local Similarity 33.0%; Pred. No. 4.9e-05;

Matches	35;	Conservative	15;	Mismatches	41;	Indels	15;	Gaps	6;
Qy	1 LLTEEVRLYCTPFRNFSVSIReEL-KRTDTFWPGCLLVKRCGGNCACCLHCNCNEQQCV-								
Db	106 VIDEENORTOOSPRETCVEASVELGHTTNPFEKPPCYNVZFCGG---CC--NEEGVMCMN 160								
Qy	59 -PSKVTKKYHEVLQLRPTKGVRLKSLTVALEHEECVCVRG 102								
Db	161 TTSVYLSKQLEISV--PLTSV---PELVVKIANHTGCKCLPTG 200								
RESULT 3									
VEGF_ORFENT	ID	P52857;	STANDARD;	PRT;	148 AA.				
AC	AC_01-OCT-1996 (Rel. 34, Created)								
DT	DT_16-OCT-2001 (Rel. 40, Last annotation update)								
OX	OX_A2R.								
RN	RN_SEQUENCE FROM N.A.								
RX	RX_MEDLINE=94076465; PubMed=8254780;								
RA	RA_Lytte D.J., Fraser K.M., Fleming S.B., Mercer A.A., Robinson A.J.;								
RT	RT_Homoologs of vascular endothelial growth factor are encoded by the poxviruses of virus."								
RL	RL_VIRUS. 68:84-92(1994).								
CC	CC_1- FUNCTION: INDUCES ENDOTHELIAL PROLIFERATION.								
CC	CC_1- SUBUNIT: HOMODIMER; DISULFIDE-LINKED (BY SIMILARITY).								
CC	CC_1- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.								
CC	CC_This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce or send an email to license@isb-sib.ch).								
CC	CC_EMBL; S67522; AB29223.1; -;								
DR	DR_HSSP; P15692; 20PF.								
DR	DR_InterPro; IPR000772; PDGF.								
DR	DR_Pfam; PF00341; PDGF_1.								
DR	DR_ProDom; PDO01629; PDGF_1.								
DR	DR_SM00141; PDGF_1.								
DR	DR_PROSITE; PS00249; PDGF_1; FALSE_NEG.								
DR	DR_PROSITE; PS50278; PDGF_2; 1.								
KW	KW_Mitogen; Growth factor; Glycoprotein; Signal.								
FT	FT_SIGNAL 1 25 VASCULAR ENDOTHELIAL GROWTH FACTOR								
FT	FT_CHAIN 26 148 HOMOLOG.								
FT	FT_DISULFID 46 88 BY SIMILARITY.								
FT	FT_DISULFID 77 130 BY SIMILARITY.								
FT	FT_DISULFID 81 132 BY SIMILARITY.								
FT	FT_DISULFID 71 71 INTERCHAIN (BY SIMILARITY).								
FT	FT_DISULFID 80 80 INTERCHAIN (BY SIMILARITY).								
FT	FT_CARBONID 95 95 N-LINKED (GLCNAC . . .) (POTENTIAL).								
SQ	SQ_SEQUENCE 148 AA; MW: F0E13BA104CC73E8 CRC64;								
Query Match	19.28;	Score 114.5;	DB 1;	Length 148;					
Best Local Similarity	30.28;	Pred. No. 2.7e-05;							
Matches	29;	Conservative	19;	Mismatches	43;	Indels	5;	Gaps	3;
Qy	11 CTPRNFSVSIReEL-KRTDTFWPGCLLVKRCGGNCACCLHCNCNEQQCV-								
Db	46 CKPRDITVYLCEXPSTNLQYNPREVTKRSGL---CCNGDQ1CITAVERTNTTVVSV 102								
Qy	70 LQLRPRTGVR-GLKHSLTDVLEHHBECDCVCRGST 104								

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RESULTS

VEGF_HUMAN
ID VEGD_HUMAN
STANDARD;
PRT; 354 AA.
AC 043915;
DT 01-MAR-2002 (Rel. 41, Created)
DT 01-MAR-2002 (Rel. 41, Last sequence update)
DT 01-MAR-2002 (Rel. 41, Last annotation update)
DE Vascular endothelial growth factor D precursor (VEGF-D) (c-fos induced growth factor) (FIGF).
GN FIGF OR VEGFD.
OS Homo sapiens (Human).
OC Bokaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominoidea; Homo.
NCBI_TAXID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-Lung; PMID=92051128;
RX Yamada Y., Nezu J.-I., Shimane M., Hirata Y.;
RT "Molecular cloning of a novel vascular endothelial growth factor, VEGF-D";
RL Genomics 42:483-488(1997).
RN [2]
RN RP SEQUENCE FROM N.A.
RC TISSUE-Lung; PMID=9479493;
RX MEDLINE=98110120; PubMed=9479493;
RA Rocchigiani M., Leistung M., Luddi A., Orlandini M., Franco B., Rossi E., Ballabio A., Zuffardi O., Oliviero S.;
RT "Human FIGF cloning, gene structure, and mapping to chromosome Xp22.1 between the PIGA and the GRPR genes.";
RL Genomics 47:207-216(1998).
RN [3]
RN RP PROCESSING, AND SEQUENCE OF 89-94; 100-105 AND 206-213.
RX MEDLINE=981118549; PMID=94352229;
RA Achen M.G., Jeltsch M., Kukk E., Maekinen T., Vitali A., Wilks A.F., Alitalo K., Stacker S.A.;
RA Nice E.C., Roufaill S., Simpson R.J., Karpanen T.,
RA Alitalo K., Achen M.G.;
RT "Vascular endothelial growth factor D (VEGF-D) is a ligand for the tyrosine kinases VEGF receptor 2 (Flk1) and VEGF receptor 3 (Flt4).";
RT proteolytic processing which generates non-covalent homodimers.";
RL Proc. Natl. Acad. Sci. U.S.A. 95:548-553(1998).
RN [4]
RN RP PROCESSING, AND SEQUENCE OF 89-94; 100-105 AND 206-213.
RX MEDLINE=20011413; PMID=10542248;
RA Stacker S.A., Stevens K.L., Caesar C., Vitali A., Domagala T.,
RA Nice E.C., Roufaill S., Simpson R.J., Moritz R., Karpanen T.,
RA Alitalo K., Achen M.G.;
RT "Biosynthesis of vascular endothelial growth factor D involves proteolytic processing which generates non-covalent homodimers.";
RL J. Biol. Chem. 274:32127-32136(1999).
CC 1- FUNCTION: Growth factor active in angiogenesis, lymphangiogenesis and endothelial cell growth, stimulating their proliferation and migration and also has effects on the permeability of blood vessels. May function in the formation of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-2 (Flk1) and VEGFR-3 (Flt4) receptors.
CC 1- SUBUNIT: Homodimer; non-covalent and antiparallel.
CC 1- SUBCELLULAR LOCATION: Secreted.
CC 1- TISSUE SPECIFICITY: Highly expressed in lung, heart, small intestine and fetal lung, and at lower levels in skeletal muscle, colon, and pancreas.
CC 1- PM: Undergoes a complex proteolytic maturation which generates a variety of processed secreted forms with increased activity toward VEGFR-3 and VEGFR-2. VEGF-D first form an antiparallel homodimer linked by disulfide bonds for better secretion. The fully processed VEGF-D is composed mostly of two VEGF homology domains (VHDs) bound by non-covalent interactions.
CC 1- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.

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CC OC Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.

CC OC NCBI_TaxID=10141;

CC RN [1]

CC RP SEQUENCE FROM N.A.

CC RC TISSUE=Bile duct;

CC RA Berse B;

CC RL Submitted (JAN-1992) to the EMBL/GenBank/DDBJ databases.

CC -i- FUNCTION: Growth factor active in angiogenesis, and endothelial cell growth. Induces endothelial proliferation, and vascular permeability (By similarity).

CC DR EMBL; Y12863; CAA13370; 1; JOINED.

CC DR EMBL; Y12864; CAA13371; 1; JOINED.

CC DR EMBL; Y12865; CAA13371; 1; JOINED.

CC DR EMBL; Y12866; CAA13371; 1; JOINED.

CC DR EMBL; Y12867; CAA13371; 1; JOINED.

CC DR EMBL; Y12868; CAA13371; 1; JOINED.

CC DR EMBL; Y12869; CAA13371; 1; JOINED.

CC DR EMBL; Y12870; CAA13371; 1; JOINED.

CC DR EMBL; ADJ00185; CAA03942; 1; JOINED.

CC DR MIM; 300991; -.

CC DR HSSP; P15692; 1VPP.

CC DR InterPro; IPR000072; PDGF.

CC DR Pfam; PF00341; PDGF; 1.

CC DR PRODOM; PD001629; PDGF; 1.

CC DR SMART; SM00111; PDGF; 1.

CC DR PROSITE; PS00278; PDGF; 2; 1.

CC DR PROSITE; PS00449; PDGF; 1.

CC DR PROSITE; PS50278; PDGF; 2; 1.

KW Mitogen; Growth factor; Glycoprotein; Signal; Repeat; Cleavage on pair of basic residues; Multigene family.

KW SIGNAL 1 21 POTENTIAL. OR 99 (IN A MINOR FORM). VASCULAR ENDOTHELIAL GROWTH FACTOR D.

FT PROPEP 22 88 FT CHAIN 89 205 FT PROPEP 206 354 FT DOMAIN 222 318 4 X 16 AA REPEATS OF C-X(10)-C-X-C-X(1,3)-C.

FT REPAT 222 237 1 (APPROXIMATE).

FT REPAT 258 273 2.

FT REPAT 277 293 3.

FT DISULFID 301 318 4.

FT DISULFID 111 153 INTRACHAIN (BY SIMILARITY). INTRACHAIN (BY SIMILARITY).

FT DISULFID 142 189 INTRACHAIN (BY SIMILARITY). INTRACHAIN (BY SIMILARITY).

FT DISULFID 146 191 INTRACHAIN (BY SIMILARITY). INTRACHAIN (BY SIMILARITY).

FT DISULFID 136 136 INTERCHAIN (BY SIMILARITY).

FT DISULFID 145 145 INTERCHAIN (BY SIMILARITY).

FT CARBOHYD 155 155 N-LINKED (GLCNAC. . .) (POTENTIAL).

FT CARBOHYD 185 185 N-LINKED (GLCNAC. . .) (POTENTIAL).

FT CARBOHYD 287 287 N-LINKED (GLCNAC. . .) (POTENTIAL).

SQ SEQUENCE 354 AA; 4044 MW; 2048D769D75173E CRC64;

Query Match 18.7%; Score 111.5; DB 1; Length 354; Best Local Similarity 32.7%; Pred. No. 0; 0.00013; Matches 33; Conservative 14; Mismatches 43; Indels 11; Gaps 5;

QY 1 LIGEVEVLYSCTPRNFSVSIREEL-KRTDTIFPGCLLVKRCGGNCACCLHNCNEC -QCV 58

Db 101 VIDBEWQRTQCSPRETCVAVASLGKSTNTFFPKPCVNVRFCGG--CCNEESLICMNTS 157

QY 59 PSKVTKKYHEVLQLRPTKGVRGLHKSSTDVALEHHECDCV 99

Db 158 TSYISKOLEFISV--PLTSV---PELVPKV7ANHTGCKCL 192

RESULT 5 VEGA_CAVPO STANDARD; PRT; 164 AA.

AC P26517; ID VEGA_CAVPO

DT 01-AUG-1992 (Rel. 23, Created)

DT 01-MAR-2002 (Rel. 41, Last sequence update)

DE Vascular endothelial growth factor A (VEGF-A) (vascular permeability factor) (VPF).

GN VEGF OR VEGFA.

OS Cavia porcellus (Guinea Pig); Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagids.

RN [1]

RP SEQUENCE FROM N.A.

RC TISSUE=Vascular smooth muscle;

RX	MEDLINE=92246970; PubMed=1575749;	VEGFB OR VRF.
RA	Nakahara K.-I., Nishimura H., Kuro-O M., Takewaki S.-I., Iwase M., Ohkubo A., Yazaki Y., Nagai R.; "Identification of three types of PDGF-A chain gene transcripts in rabbit vascular smooth muscle and their regulated expression during development and by angiotensin II."	Homo sapiens (Human). Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
RT	Biochem. Biophys. Res. Commun. 184: 811-818(1992).	[1]
RL	-!- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICTS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HALT THE WOUND.	SEQUENCE FROM N.A. (ISOFORMS VEGF-B186 AND VEGF-B167).
CC	-!- SUBUNIT: ANTI-PAPAIN-LINKED DILSIFIDE-LINKED DIMER OF NONIDENTICAL (A AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN TRANSFORMATION PROCESSES.	SEQUENCE FROM N.A. (ISOFORM VEGF-B186).
CC	-!- ALTERNATIVE PRODUCTS: 3 ISOFORMS; A1, A2 (SHOWN HERE) AND A3; ARE PRODUCED BY ALTERNATIVE SPLICING.	SEQUENCE FROM N.A. (ISOFORM VEGF-B186).
CC	-!- INDUCTION: THE FORM A3 IS SELECTIVELY INDUCED BY ANGIOTENSIN II.	TISSUE=Fibrosarcoma;
CC	-!- MISCELLANEOUS: A-A AND B-B, AS WELL AS A-B, DIMERS CAN BIND TO THE PDGF RECEPTOR.	RC
CC	-!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.	MEDLINE=96125041; PubMed=8702615;
DR	PIR: JS0735; JS0735.	Olofsson B., Lagercrantz J., Drinkwater C., Silins G., Townson S., Grummond S., Lagercrantz J., Drinkwater C., Silins G., Townson S., Pollock P., Gotley D., Carson E., Rakar S., Nordenskjold M., Ward L., Hayward N.K., Weber G.; "Cloning and characterization of a novel human gene related to vascular endothelial growth factor B (VEGF-B) and characterization of a second splice isoform."
DR	PIR: PS0381; PS0387.	RA
DR	PIR: JN0248; JN0248.	RA
DR	HSSP; P01127; 1PDG.	RA
DR	Intertoto; IPR002400; GF_cysknot.	RA
DR	Intertoto; IPR000072; PDGF.	RA
DR	PRINTS; PR00438; GFcYSKNOT.	RA
DR	PRODOM; PDD01659; PDGF; 1.	RA
CC	SMART; SM00141; PDGF; 1.	Saksela O., Orpana A., Pettersson R.F., Alitalo K., Eriksson U.; "Vascular endothelial growth factor B, a novel growth factor for endothelial cells."
DR	PROSITE; PS00249; PDGF; 1.	RT
DR	PROSITE; PS50278; PDGF; 2.	RT
RW	Glycoprotein; Mitogen; Growth factor; Platelet; Alternative splicing; Signal.	Proc. Natl. Acad. Sci. U.S.A. 93:2576-2581(1996).
FT	SIGNAL 1 20 BY SIMILARITY.	RN [2]
FT	PROPEP 21 89 REMOVED BY PROTEOLYSIS (BY SIMILARITY).	RP
FT	CHAIN 90 213 PLATELET-DERIVED GROWTH FACTOR, A CHAIN.	RC
FT	SITE 158 162 RECEPTOR BINDING SITE (POTENTIAL).	SEQUENCE FROM N.A. (ISOFORM VEGF-B167).
FT	DISULFID 131 179 BY SIMILARITY.	RC
FT	DISULFID 135 181 BY SIMILARITY.	TISSUE=Tonsil;
FT	DISULFID 125 125 INTERCHAIN (BY SIMILARITY).	Strasbourg R.;
FT	DISULFID 134 134 INTERCHAIN (BY SIMILARITY).	RA
FT	CARBOYD 136 136 N-LINKED (GLCNAC) (POTENTIAL).	RA
FT	VARSPLIC 196 198 GRR -> DVR (IN ISOFORM A1).	RA
FT	VARSPLIC 199 213 MISSING (IN ISOFORM A1).	RA
FT	VARSPLIC 197 213 RRRESKQKRKKRKRRT -> TLLPAGGVHPQQCLRLAHDG (IN ISOFORM A3).	RA
FT	SEQUENCE 213 AA; 24005 MW; 28A9B7E50487F4C CRC64;	RA
RW	Query Match 18.1%; Score 108; DB 1; Length 213;	RA
Best Local Similarity 32.3%; Pred. No. 0.00018;	Matches 32; Conservative 14; Mismatches 41; Indels 12; Gaps 6;	RA
Matches 32; Conservative 14; Mismatches 41; Indels 12; Gaps 6;	RA	
OY	11 CTPRNFSVSI-REELKRKTDFF-WPGCLLKVRCGGNCACCLHNCNECOVPSKVTKYH 67	RA
Db	98 QKTRVIVYEPSPQDPTSFANLWPPCVCWKRCTG--CC-NFSSVRCQPSRV--HH 149	RA
OY	68 EVLQLRKPTGVRLHKLSTDVALEHHEECVCRGSTGG 106	RA
Db	150 RSVKVAKVEVTRKKPK-LKEVQVRLEEHLCACASSAG 187	RA
RESULT 7	VEGB_HUMAN	VEGB_HUMAN
ID	P49765; Q16528; STANDARD;	STANDARD;
AC	P49765; Q16528;	PRT;
DT	01-OCT-1996 (Rel. 34, Created)	207 AA.
DT	01-MAR-2002 (Rel. 41, Last sequence update)	
DT	01-MAR-2002 (Rel. 41, Last annotation update)	
DE	Vascular endothelial growth factor B precursor (VEGF-B) (VEGF related factor) (VRF).	
DB		

RA Wong-Staal F.; "Transforming potential of human c-sis nucleotide sequences encoding platelet-derived growth factor."; Science 225: 636-639(1984).
 RT PMID=636-639(1984).
 RL [2]

RP SEQUENCE FROM N.A.
 RX MEDLINE=86205961; PubMed=3517869;
 RA "Structure and sequence of the human c-sis/platelet-derived growth factor 2 (SIS/PDGF2) transcript unit."; Proc. Natl. Acad. Sci. U.S.A. 83:2392-2396(1986).
 RT [3]

RP SEQUENCE OF 22-241 FROM N.A.
 RX MEDLINE=84205633; PubMed=6327048;
 RA Chiu I.-M., Reddy E.P., Givoli D., Robbins K.C., Tronick S.R., Aaronson S.A.; "Nucleotide sequence analysis identifies the human c-sis proto-oncogene as a structural gene for platelet-derived growth factor."; Cell 37:123-129(1984).
 RT [4]

RP SEQUENCE FROM N.A.
 RX MEDLINE=852296313; PubMed=4033772;
 RA Collins T., Ginsburg D., Boss J.M., Orkin S.H., Pober J.S.; "Cultured human endothelial cells express platelet-derived growth factor B chain: cDNA cloning and structural analysis."; Nature 316:748-750(1985).
 RT [5]

RP SEQUENCE FROM N.A.
 RX MEDLINE=85229623; PubMed=2991848;
 RA Rao C.D., Igarashi H., Jarrett R., Reitz M.S., Wong-Staal F.; Ratner L., Josephs S.F.; "Nucleotide sequence of transforming human c-sis cDNA clones with homology to platelet-derived growth factor."; Nucleic Acids Res. 13:5007-5018(1985).
 RT [6]

RP SEQUENCE FROM N.A.
 RX MEDLINE=87217119; PubMed=3472769;
 RA Robbins K.C., Aaronson S.A.; "Oncogenic potential of the human platelet-derived growth factor transcribing unit."; Cold Spring Harb. Symp. Quant. Biol. 51:959-966(1986).
 RT [7]

RP SEQUENCE FROM N.A.
 RA Burgess J., Odeill C., Submitted (OCT-1996) to the EMBL/GenBank/DDBJ databases.
 RL [8]

RP SEQUENCE OF 1-53 FROM N.A.
 RX MEDLINE=97141927; PubMed=8988177;
 RA Coindre J.-M., Pedecour F., Servent N., Grosgeorge J., Minoletti F., Blin N., Sozzi G., Turc-Carel C., O'Brien K.P., Kedra D., Pranssion I., Guillaud C., Dumanski J.P.; "Dereulation of the platelet-derived growth factor B-chain gene via fusion with collagen gene COL1A1 in dermatofibrosarcoma protuberans and giant-cell fibroblastoma."; Nat. Genet. 15:95-98(1997).
 RL [9]

RP SEQUENCE OF 26-241 FROM N.A., AND PARTIAL SEQUENCE.
 RX MEDLINE=86164981; PubMed=3456304;
 RA Weich H.A., Sehgal W., Schairer H.U., Hoppe J.; "The human osteosarcoma cell line U-2 OS expresses a 3.8 kilobase mRNA which codes for the sequence of the PDGF-B chain."; FEBS Lett. 198:344-348(1986).
 RT [10]

RP SEQUENCE OF 153-200 FROM N.A., AND PARTIAL SEQUENCE.
 RX MEDLINE=85236121; PubMed=6329745;
 RA Johnson A., Heldin C.H., Westermark B., Deuel T.F., Huang J.S., Seuberg P.H., Gray A., Ullrich A., Scrace G., Stroobant P., Waterfield M.D.; "The c-sis gene encodes a precursor of the B chain of platelet-derived growth factor."; EMBO J. 3:921-928(1984).
 RL [11]

RP SEQUENCE OF 82-110.
 RX MEDLINE=83197319; PubMed=6844921;
 RA Antoniades H.N., Hankapiller M.W.; "Human platelet-derived growth factor (PDGF): amino-terminal amino acid sequence."; RT [2]

RP SEQUENCE OF 82-112.
 RX MEDLINE=83244981; PubMed=6306471;
 RA Waterton M.D., Scrase G.T., Whittle N., Stroobant P., Johnsson A., Watson A., Westermark B., Heldin C.H., Huang J.S., Deuel T.F.; "Platelet-derived growth factor is structurally related to the putative transforming protein p28sis of simian sarcoma virus."; Nature 304:35-39(1983).
 RL [12]

RP MUTAGENESIS, AND IMPORTANCE OF ARG-108 AND ILE-111 FOR RECEPTOR BINDING.
 RX MEDLINE=92097530; PubMed=1661670;
 RA Clements J.M., Bawden L.J., Bloxidge R.E., Catlin G., Cook A.L., Craig S., Drummond A.H., Edwards R.M., Fallon A., Green D.R., Hellwell P.G., Kirwin P.M., Nayee P.D., Richardson S.J., Brown D., Chahwala S.B., Snarey M., Winslow D.; "Two PDGF-B chain residues, arginine 27 and isoleucine 30, mediate receptor binding and activation."; EMBO J. 10:4113-4120(1991).
 RL [13]

RP INTERCHAIN DISULFIDE BONDS.
 RX MEDLINE=92137633; PubMed=1317662;
 RA Andersson M., Oestman A., Baekstroem G., Hellman U., Ofner C., D'Arcy A., Winkler F.K., Eggimann B., Hosang M.; George-Nascimento C., Westermark B., Heldin C.-H.; "Assignment of interchain disulfide bonds in human platelet-derived growth factor (PDGF)." J. Biol. Chem. 267:11260-11266(1992).
 RL [14]

RP X-RAY CRYSTALLOGRAPHY (3.0 ANGSTROMS).
 RX MEDLINE=93010987; PubMed=1396386;
 RA Ofner C., D'Arcy A., Winkler F.K., Eggimann B., Hosang M.; RT "Crystal structure of human platelet-derived growth factor BB."; EMBO J. 11:3921-3926(1992).
 RL [15]

CC -1- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.
 CC -1- SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN TRANSFORMATION PROCESSES.
 CC -1- PHARMACEUTICAL: Available under the name Regranex (Ortho-McNeill).
 CC -1- USED TO PROMOTE HEALING IN DIABETIC NEUROPATHIC FOOT ULCERS.
 CC -1- MISCELLANEOUS: A-A AND B-B, AS WELL AS A-B, DIMERS CAN BIND TO THE PDGF RECEPTOR.
 CC -1- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
 CC -1- DATABASE: NAME='S' Systems, cytokine source book: PDGF; WWW="http://www.rndsystems.com/aspx/G-sitebuilder.asp?bodyId=220".
 CC -1- DATABASE: NAME=regranex; NOTE=Clinical information on Regranex; WWW="http://www.regranex.com/".
 CC ---

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DR EMBL; K01401; AAA60552; 1;
 DR EMBL; K01918; AAA60552; 1; JOINED;
 DR EMBL; J00121; AAA60552; 1; JOINED;
 DR EMBL; K01398; AAA60552; 1; JOINED;
 DR EMBL; K016052; 1; JOINED;
 DR EMBL; K01400; AAA60552; 1; JOINED;
 DR EMBL; X02811; CAA26579; 1;
 DR EMBL; M12783; AAA60553; 1;

RN [2] REVISIONS.
 RP van den Ouwehand A.M.W.;
 RA
 EMBL: X02744; CAA26524; 1;
 DR EMBL: K01917; AAA98793; 1; JOINED.
 DR EMBL: K01913; AAA98793; 1; JOINED.
 DR EMBL: K01914; AAA98793; 1; JOINED.
 DR EMBL: K01915; AAA98793; 1; JOINED.
 DR EMBL: K01916; AAA98793; 1; JOINED.
 DR EMBL: P12919; CA27333; 1;
 DR EMBL: 281010; CAB02635; 1;
 DR EMBL: X00561; CAA2528; 1;
 DR EMBL: X00561; CAA25229; 1;
 DR EMBL: X98706; CAA67262; 1;
 PIR: A94276; PFHUG2.
 PDB: 1PDC; 31-JAN-94.
 MIM: 190040; .
 DR InterPro; IPR02400; GF_cysknot.
 DR Pfam; PF00341; PDGF; 1.
 DR PRINTS; PRO0438; GFCKSKNOT.
 DR PRODOM; SM001629; PDGF; 1.
 DR SMART; SM00141; PDGF; 1.
 DR PROSITE; PS00278; PDGF; 1.
 DR PROSITE; PS00278; PDGF; 2; 1.
 KW Mitogen; Growth factor; Proto-oncogene; Platelet; Signal;
 KW Pharmaceutical; 3D-structure.
 FT PROPEP 1 20
 FT PROPEP 21 81
 FT CHAIN 82 190
 FT PROPEP 191 241
 FT SITE 108 108
 FT SITE 111 111
 DT DISULFID 97 141
 FT DISULFID 130 178
 FT DISULFID 134 180
 FT DISULFID 124 124
 FT DISULFID 133 133
 FT CONFLICT 21 21
 FT CONFLICT 101 101
 FT CONFLICT 105 105
 FT PROTEIN 17.6%; Score 105; DB 1; Length 241;
 Best Local Similarity 33.3%; Pred. No. 0.00043;
 Matches 36; Conservative 12; Mismatches 34; Indels 26; Gaps 9;
 Query 2 LTEEVRLYSCTPRN--FSVSVIREELKRTDTIF--WPGCLLYKRCGGNCACCAHHNCNECQC 57
 Qy 88 IAEPAMIAECKTREYEIS-KRLIDRTNAFLNFWPCVEQRCSG---CC--NNRNVCQ 141
 Qy 58 VPSKVKKYHEVLQLRP---KTGV ---RGLHKSSTDVALEHHECDC 98.
 Db 142 RPTQV----QuRpvQVRKIEIVRKPKAT-VTLEDHACKC 180;
 RESULT 10
 PDGB_FELCA STANDARD; PRT; 245 AA.
 ID PDGB_FELCA STANDARD; PRT; 245 AA.
 AC P12919;
 DT 01-OCT-1989 (Rel. 12, Created)
 DT 16-OCT-2001 (Rel. 40, Last annotation update)
 DE Platelet-derived growth factor, B chain precursor (PDGF B-chain).
 DE PDGFB OR SIS.
 OS Felis silvestris catus (Cat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
 RN [1] SEQUENCE FROM N.A.
 RP MEDLINE=87146463; PubMed=3822831;
 RX van den Ouwehand A.M.W.; van Groningen J.J.M., Schalken J.A.,
 RA van Neek H.W., Bloemers H.P.J., van de Ven W.J.M.;
 RT "Genetic organization of the c-sis transcription unit.";
 RL Nucleic Acids Res. 15:959-970(1987).

RN [2] REVISIONS.
 RP van den Ouwehand A.M.W.;
 RA
 EMBL Submitted (NOV-1996) to the EMBL/Genbank/DBJ databases.
 DR -!- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.
 DR -!- SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN TRANSFORMATION PROCESSES.
 DR -!- MISCELLANEOUS: A-A AND B-B, AS WELL AS A-B, DIMERS CAN BIND TO THE PDGF RECEPTOR.
 DR -!- SIMILARITY: BELONGS TO THE PDGF/YEGF FAMILY OF GROWTH FACTORS.
 DR -!- SIMILARITY: BELONGS TO THE PDGF/YEGF FAMILY OF GROWTH FACTORS.
 DR -!- This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non profit institutions as long as its content is in no way modified and this statement is not removed. Use by and for commercial entities requires a license agreement (See <http://www.isb-sib.ch/announce/> or send an email to license@isb-sib.ch).
 DR -!- EMBL: X05112; CAA28758; 1; ALT_SEQ.
 DR PIR: A26402; TWCNSS.
 DR HSSP; P01127; 1PDC.
 DR InterPro; IPR002400; GF_cysknot.
 DR InterPro; IPR002402; GF_cysknot.
 DR InterPro; IPR00072; PDGF.
 DR PIR: PF00341; PDGF; 1.
 DR PRINTS; PRO0438; GFCKSKNOT.
 DR PRODOM; PDD01629; PDGF; 1.
 DR SMART; SM00141; PDGF; 1.
 DR PROSITE; PS00249; PDGF; 1.
 DR PROSITE; PS50278; PDGF; 2; 1.
 DR Mitogen; Growth factor; Proto-oncogene; Platelet; Signal.
 RW FT SIGNAL 1 20 BY SIMILARITY.
 FT PROPEP 21 81
 FT CHAIN 82 194
 FT PROTEIN 195 245 BY SIMILARITY.
 FT DISULFID 101 145 BY SIMILARITY.
 FT DISULFID 134 182 BY SIMILARITY.
 FT DISULFID 138 184 BY SIMILARITY.
 FT DISULFID 128 128 INTERCHAIN (BY SIMILARITY).
 FT DISULFID 137 137 INTERCHAIN (BY SIMILARITY).
 SQ SEQUENCE 245 AA; E7175291D9837512 CRC64;
 SQ PROTEIN 27787 MW; E7175291D9837512 CRC64;
 Query Match 17.6%; Score 105; DB 1; Length 245;
 Best Local Similarity 33.0%; Pred. No. 0.00043; Pred: No 0.00043;
 Matches 35; Conservative 13; Mismatches 36; Indels 22; Gaps 8;

Qy 2 LTEEVRLYSCTPRN--FSVSVIREELKRTDTIF--WPGCLLYKRCGGNCACCAHHNCNECQC 57
 Db 88 IAEPAMIAECKTREYEIS-KRLIDRTNAFLNFWPCVEQRCSG---CC--NNRNVCQ 141
 Qy 58 VPSKVKKYHEVLQLRP---KTGV ---RGLHKSSTDVALEHHECDC 98.
 Db 142 RPTQV----QuRpvQVRKIEIVRKPKAT-VTLEDHACKC 180;
 RESULT 11
 VEGA_HUMAN STANDARD; PRT; 232 AA.
 AC P15692; Q165889; 060720; 075875; Q9UJ23; Q9H1W9; Q9H1W8;
 DT 01-APR-1990 (Rel. 14, Created)
 DT 01-MAR-2002 (Rel. 41, Last sequence update)
 Qy 58 VPSKVKKY---HEVLQLRPTKGRLHKSSTDVALEHHECDC 98
 Db 146 RPTQVQLRVQVRKIEIVRKPKAT-VTLEDHACKC 184
 DE Vascular endothelial growth factor A precursor (VEGF-A) (vascular permeability factor) (VPF).
 DE VEGF OR VEGFA.
 GN Homo sapiens (Human).
 OS Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;

[1] RN SEQUENCE FROM N.A. (ISOFORM VEGF165).
OX NCBI_TaxID=9606;
RN RP TISSUE-Hemangiocendothelioma;
RX MEDLINE=90063608; PubMed=2479986;
RA Murata H., Fukushima J., Hattori S., Okuda K., Yanagi H.;
Leung D.W., Cachianes G., Kuang W.-J., Goeddel D.V., Ferrara N.;
"Vascular endothelial growth factor is a secreted angiogenic
mitogen";
RT mitogen;
RN Science 246:1306-1309(1989).

[2] RN SEQUENCE FROM N.A. (ISOFORM VEGF189), AND PARTIAL SEQUENCE.
RX MEDLINE=90063609; PubMed=2479987;
RA Connolly D.T.;
Keck P.J.; Hauser S.D.; Krivi G.; Sanzo K.; Warren T.; Feder J.,
Connolly D.T.;
RA "Vascular permeability factor, an endothelial cell mitogen related to
VEGF";
RT Fiddes J.C., Mitchell R., Hartman T., Silva M., Gospodarowicz D.,
Tischer E., Mitchell R., Hartman T., Silva M., Gospodarowicz D.,
Fiddes J.C., Abramson J.A.;
RT "The human gene for vascular endothelial growth factor. Multiple
protein forms are encoded through alternative exon splicing.";
RL Mol. Biol. Chem. 266:11947-11954 (1991).

[3] RN SEQUENCE FROM N.A. (ISOFORM VEGF189).
RX MEDLINE=91263072; PubMed=1711045;
RA RT
SEQUENCE FROM N.A. (ISOFORM VEGF121).
RX MEDLINE=91304945; PubMed=10464055;
RA Whittle C.J., Gillespie K.M., Harrison R., Mathieson P.W.,
Harper S.J.;
RT "Human cDNA for the vascular endothelial growth factor (VEGF) isoform mRNA
and receptor mRNA expression in human glomeruli, and the
identification of VEGF148 mRNA, a novel truncated splice variant.";
RT Submitted (DEC-1998) to the EMBL/GenBank/DDBJ databases.
RN [111]
SEQUENCE FROM N.A. (ISOFORM VEGF148).
RN TISSUE-Renal glomerulus;
RC MEDLINE=99304945; PubMed=10464055;
RA Whittle C.J., Gillespie K.M., Harrison R., Mathieson P.W.,
Harper S.J.;
RT "Heterogeneous vascular endothelial growth factor (VEGF) isoform mRNA
and receptor mRNA expression in human glomeruli, and the
identification of VEGF148 mRNA, a novel truncated splice variant.";
RT Submitted (DEC-1998) to the EMBL/GenBank/DDBJ databases.
RN [112]
SEQUENCE FROM N.A. (ISOFORM VEGF121).
RN TISSUE-Renal glomerulus;
RC MEDLINE=99304945; PubMed=10464055;
RA Sato J.D., Whitney R.G.;
RT "Human cDNA for vascular endothelial growth factor isoform VEGF121.";
RT Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
RN [113]
SEQUENCE FROM N.A. (ISOFORM VEGF121).
RN TISSUE-Renal glomerulus;
RC MEDLINE=99304945; PubMed=10464055;
RA Williams S.;
RT Submitted (DEC-2000) to the EMBL/GenBank/DDBJ databases.
RN [114]
SEQUENCE OF 27-41.
RN PRELIMINARY SEQUENCE OF 27-36; 43-50 AND 59-81.
RX MEDLINE=90062112; PubMed=2384205;
RA Connolly D.T., Olander J.V., Heuveldorp D., Nelson R., Monsell R.,
Segei N., Haymore B.L., Leimgruber R., Feder J.;
RT "Human vascular permeability factor. Isolation from U937 cells.";
RL J. Biol. Chem. 264:20017-20024(1989).
RN [115]
SEQUENCE OF 27-41.
RN PRELIMINARY SEQUENCE OF 27-41.
RX MEDLINE=93145946; PubMed=7678805;
RA Fleibich B.L., Jeger B., Schoellmann C., Weindel K., Wilting J.,
Weindel K., Marne D., Weich H.A.;
RT Kochs G., Marne D., Weich H.A.;
RT "Synthesis and assembly of functionally active human vascular
endothelial growth factor homodimers in insect cells.";
RT Submitted (DEC-1993).
RN [116]
X-RAY CRYSTALLOGRAPHY (2.5 ANGSTROMS) OF 34-135.
RX MEDLINE=9732774; PubMed=9307067;
RA Muller Y.A., Li B., Christinger H.W., Wells J.A., Cunningham B.C.,
de Vos A.M.;
RT "Vascular endothelial growth factor: crystal structure and functional
mapping of the kinase domain receptor binding site.";
RT RL Proc. Natl. Acad. Sci. U.S.A. 94:7192-7197(1997).
RN [117]
X-RAY CRYSTALLOGRAPHY (1.93 ANGSTROMS) OF 34-135.
RX MEDLINE=9805455; PubMed=9351807;
RA Muller Y.A., Christinger H.W., Keyt B.A., de Vos A.M.;
RT "The crystal structure of vascular endothelial growth factor (VEGF)
refined to 1.93-A resolution: multiple copy flexibility and receptor-blocking
peptide.";
RT RL Biochimistry 37:17765-17772(1998).
RN [118]
X-RAY CRYSTALLOGRAPHY (1.9 ANGSTROMS) OF 39-134.
RX MEDLINE=99119204; PubMed=9922142;
RA Wiesmann C., Christinger H.W., Cochran A.G., Cunningham B.C.,
Fairbrother W.J., Keenan C.J., Meng G., de Vos A.M.;
RT "Crystal structure of the complex between VEGF and a receptor-blocking
peptide.";
RT RL Biochimistry 37:17765-17772(1998).
RN [119]
STRUCTURE BY NMR OF 34-135.
RX MEDLINE=97477915; PubMed=3336848;
RA Fairbrother W.J., Champ M.A., Christinger H.W., Keyt B.A.,
Starovasnik M.A.;
RT "Human Muller cells express VEGF183, a novel spliced variant of
vascular endothelial growth factor.";
RT RL Invest. Ophthalmol. Vis. Sci. 40:752-759(1999).
RN

RN [20]	SEQUENCE OF 8-204 FROM N.A.
RP MEDLINE=98298440; PubMed=9634701;	RX MEDLINE=93305723; PubMed=8318539;
RX	RX Herren R.; Weyer K.A.; Rouge M.; Loertscher P.; Pech M.;
RA Fairbrother W.J.; Champe M.A.; Christinger H.W.; Keyt B.A.,	RT "Conservation in sequence and affinity of human and rodent PDGF ligands and receptors";
RA Starovashki M.A.;	RT
RT "Solution structure of the heparin-binding domain of vascular endothelial growth factor.";	RL Biochim. Biophys. Acta 1173:294-302(1993).
RL Structure 6:67-648(1998).	RN [2]
RN	RN SEQUENCE FROM N.A.
RP MEDLINE=93191115; PubMed=8447423;	RX MEDLINE=93191115; PubMed=8447423;
RX	RA Katayose D.; Ohe M.; Yamauchi K.; Ogata M.; Shirato K.; Fujita H.,
RA Shibusawa S.; Takishima T.	RA "Increased expression of PDGF A- and B-chain genes in rat lungs with hypoxic pulmonary hypertension";
RA	RT "Cloning," and expression of rat platelet-derived growth factor A-chain;"
RA	RT Am. J. Physiol. 264:L100-L106(1993).
RA	RN [3]
RP SEQUENCE FROM N.A. (SHORT FORM).	RX SEQUENCE FROM N.A. (SHORT FORM).
RP	RA Xiong L.; Tang W.W.; Wilson C.B.;
RC STRAIN=FISCHER 344; TISSUE=smooth muscle;	RA Szabo P.; Weksler D.; Whittington E.; Weksler B.B.;
RC	RA "The age-dependent proliferation of rat aortic smooth muscle cells is independent of differential splicing of PDGF A-chain mRNA.";
RC	RT Mech. Ageing Dev. 67:79-89(1993).
RC	-!- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.
CC -1- SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN TRANSFORMATION PROCESSES.	RL
CC -1- ALTERNATIVE PRODUCTS: 2 isoforms: a long form (shown here) and a short form; are produced by alternative splicing.	CC
CC -1- DEVELOPMENTAL STAGE: IN KIDNEY EPITHELIAL TISSUES, THE SHORTER FORM predominates in young (1 DAY OLD) RATS WHILE THE LONGER FORM BECOMES MORE PREVAILANT DURING AGING.	CC
CC -1- DOMAIN: The long form contains a basic insert which acts as a cell recognition signal.	CC
CC -1- MISCELLANEOUS: A-A AND B-B, AS WELL AS A-B, DIMERS CAN BIND TO THE PDGF RECEPTOR.	CC
CC -!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.	CC
-----	CC
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DR L06894; AA599693.1; -	CC
DR 214120; CAA78490.1; -	CC
DR D10106; BAA00987.1; -	CC
DR L06238; AA41932.1; -	CC
DR S57864; AAB26134.2; -	CC
DR P01127; IPDG. InterPro; IPR002400; GF_cysknot. InterPro; IPR00072; PDGF. InterPro; IPR00134; PDGF. PRINTS; PRO0438; GFCYKNOT. PCDDOM; PDD01629; PDGF. SMART; SM0141; PDGF. HSSP; P01127; IPDG.	DR
DR PROSITE; PS00249; PDGF.1. PROSITE; PS50278; PDGF.2. Glycoprotein; Mitogen; Growth factor; Platelet; Alternative splicing; Signal. FT SIGNAL 1 20	KW KW KW
DR PROPEP 21 85 BY SIMILARITY. REMOVED BY PROTEOLYSIS.	FT PROPEP 21 85

FT CONFLICT 174 174 H → D (IN REF. 1).
 SQ SEQUENCE 211 AA; 24102 MW; AC4345A10ECF4B39 CRC64;

Query Match Score 104; DB 1; Length 211;
 Best Local Similarity 34.0%; Pred. No. 0.00048;
 Matches 32; Conservative 12; Mismatches 34; Indels 16; Gaps 6;

Search completed: May 24, 2002, 10:02:03
 Job time: 202 sec

Qy 11 CTPRNFSVSI-REELKRTDTIF--WPGCLLVKRCGGNCACCLHNCNCQCVPSKV--TK 64
 Db 96 CKPTVIVYEIPRSQNDPISANFLIWPPCVCVRCTG---CC-NTSSVQCPSRVHRSV 150

Qy 65 KYHEVLQRPKTVGRGLIKSLTDVALEHHEECDC 98
 Db 151 KVAKVEYVRRKKPKLKEV---QVRLEEHLECAC 179

RESULT 15

TSIS_SMSAV ID TSIS_SMSAV STANDARD; PRT; 226 AA.

AC P01128; 041283; PRT; 226 AA.

DT 21-JUL-1986 (Rel. 01, Created)
 DT 21-JUL-1986 (Rel. 01, Last sequence update)
 DT 01-MAR-2002 (Rel. 41, Last annotation update)

DE PDGF-related transforming protein sis (p28sis).

GN V-SIS.

OS Simian sarcoma virus.

OC Viruses; Retroviridae; Retroviridae; Gamma-retrovirus.

OX NCBI_TaxID=11817;

RN [1]

RP SEQUENCE FROM N.A.
 MEDLINE=31144004; PubMed=6298772;

RA Devare S.G., Reddy E.P., Law J.D., Robbins K.C., Aaronson S.A.;

RT "Nucleotide sequence of the simian sarcoma virus genome;
 demonstration that its acquired cellular sequences encode the
 transforming gene product p28sis";

RT Proc. Natl. Acad. Sci. U.S.A. 80:731-735(1993).

CC !- SIMILARITY: BELONGS TO THE PDGF/YEGF FAMILY OF GROWTH FACTORS.

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 or send an email to licensing@isb-sib.ch).

CC DR EMBL; V01201; CAA24516.1; ALT_INIT.

CC DR PIR; A01381; TVMVSS.

CC DR HSSP; P01127; LPDG.

CC DR InterPro; IPR02400; GE_cysknot.

CC DR InterPro; IPR00072; PDGF.

CC DR Pfam; PF00341; PDGF; 1.

CC DR PRINTS; PR00438; GFCSYSNOT.

CC DR PRODOM; PD001629; PDGF; 1.

CC DR SMART; SR00141; PDGF; 1.

CC DR PROSITE; PS00249; PDGF; 1.

CC DR PROSITE; PS05078; PDGF; 2; 1.

CC KW Oncogene; Growth factor.

CC SQ SEQUENCE 226 AA; 25411 MW; A16813ABB95B90C5 CRC64;

Query Match Score 104; DB 1; Length 226;
 Best Local Similarity 33.3%; Pred. No. 0.00051;
 Matches 36; Conservative 12; Mismatches 34; Indels 26; Gaps 9;

Qy 2 LTEEVRLYSCTPRN--FVSYSIREELKRTDTIF--WPGCLLVKRCGGNCACCLHNCNCQCVPSKV--TK 57
 Db 73 VAEPAMIAEKTRTEVFELTS-RLIDRDNANFLWPPCVCVRCTG---CC-NNRIVQCC 126

Qy 58 VPSKVTKYHEVTLQLRP---KTVG---RGHLRSLTDVALEHHEECDC 98
 Db 127 RPTQV-----QLRPVQVRKIEVRRKPIFKKAT-VTLEDHLACKC 165

ALIGNMENTS

```
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodont:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*
```

No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query		DB	ID	Description
		Match	Length			
1	597	100.0	345	4	Q9NRA1	Q9nra1 ho
2	597	100.0	345	4	Q9UL22	Q9ul22 ho
3	572	95.8	345	11	Q9QY71	Q9qy71 ho
4	565	94.6	345	11	Q9JHV8	Q9jhv8 m
5	563	94.3	345	11	Q9EOX6	Q9eqx6 r
6	527	88.3	345	13	Q9I946	Q9i946 g
7	305.5	51.2	290	11	Q9D1L8	Q9d1l8 m
8	305.5	51.2	364	4	Q9BWV5	Q9bwv5 ho
9	305.5	51.2	370	4	Q9GP0	Q9gp0 ho
10	305.5	51.2	370	11	Q9EOT1	Q9eot1 r
11	305.5	51.2	370	11	Q925J7	Q925j7 m
12	180	30.2	34	11	Q99JM4	Q99jm4 m
13	117.5	19.7	326	11	Q91ZE4	Q91ze4 r
14	114.5	19.2	146	13	Q90XZ3	Q90xz3 b
15	108.5	18.2	148	13	Q42571	Q42571 x
16	108.5	18.2	194	13	Q42572	Q42572 x

Query	Match	Score	Length
Best Local	Similarity	100.0%	345
Matches	Conservative	100.0%	345
Matches	Optimal	100.0%	345
Gaps		0	0

Qy	1	LITTEVRLYSCTPRNSVSREELKRTDTIWFPGCLVKRGNNACCLHCNCQCVP5	60
Db	240	LITTEVRLYSCTPRNSVSREELKRTDTIWFPGCLVKRGNNACCLHCNCQCVP5	299
Qy	61	KVTKKYHEVLQLRPTGVRLHKSLTDVALEHHECDVCVRGSTGG	106
Db	300	KVTKKYHEVLQLRPTGVRLHKSLTDVALEHHECDVCVRGSTGG	345
RESULT	2		
ID	Q9UL22	PRELIMINARY;	PRT;
AC	Q9UL22;	345 AA.	
DT	01-MAY-2000 (TREMBL)	13, Created	
DT	01-MAY-2000 (TREMBL)	13, Last sequence update	
DT	01-DEC-2001 (TREMBL)	19, Last annotation update	
DE	SECRETORY GROWTH FACTOR-LIKE PROTEIN FALLOSTEIN (SPINAL CORD-DERIVED GROWTH FACTOR) (PLATELET-DERIVED GROWTH FACTOR C).		
GN	HSGDF or PDGFc.		
OS	Homo sapiens (Human)		
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.		
OC	NCBI-Taxid=9606;		
OX	[1]		
RN	RP	SEQUENCE FROM N.A.	
RC	TISSUE=UTRUS;		
RA	RA	Tsai Y.J., Lee R.K.K., Lin S.P.;	
RT	RT	"Fallostein", a novel growth factor like gene identified in human uterus;"	
RT	RT	Submitted (SEP-1998) to the EMBL/GenBank/DDJB databases.	
[2]	RP	SEQUENCE FROM N.A.	
RC	TISSUE=BRAIN;		
RX	MEDLINE=20317014; PubMed=10856496;		
RA	Hamada T., Ue-Tei K., Miyata Y.;		
RT	RT	"A novel gene derived from developing spinal cords, SCDF, is a unique member of the PDGF/VEGF family.";	
RT	RT	Binds to PDGF alpha and beta Receptor."	
RL	RL	J. Biol. Chem. 276:27406-27414 (2001).	
RN	[3]		
RP	SEQUENCE FROM N.A.		
RX	MEDLINE=21347853; PubMed=11297552;		
RA	Gilbertson D.G., Diffitt M.E., West J.W., Kelly J.D., Sheppard P.O., Hofstrand P.D., Gao Z., Shoemaker K., Bukiowski T.R., Moore M., Feildhaus A.L., Humes J.M., Palmer T.E., Hart C.E.;		
RA	RT	"Platelet-derived Growth Factor C (PDGF-C), a Novel Growth Factor That Binds to PDGF alpha and beta Receptor."	
RL	RL	J. Biol. Chem. 276:27406-27414 (2001).	
CC	-1 SIMILARITY: CONTAINS 1 CUB DOMAIN.		
EMBL; AF01434;	AAF0049.1;		
DR	PFAM; PF00431; CUB;		
RA	DR	PF00431; PDGF; 1.	
SMART; SM00042; CUB; 1;			
DR	DR	SMART; SM00141; PDGF; 1.	
PROSITE; PS01180; CUB; 1;			
DR	DR	PROSITE; PS50278; PDGF 2;	
InterPro; IPR000072; PDGF.			
InterPro; IPR000072; PDGF.			
DR	DR	PFAM; PF00431; CUB; 1;	
DR	DR	SMART; SM00042; CUB; 1;	
SMART; SM00141; PDGF; 1.			
DR	DR	PROSITE; PS01180; CUB; 1.	
DR	DR	PROSITE; PS50278; PDGF 2;	
DR	DR	SEQUENCE 345 AA; 39029 MW;	
DR	DR	CDE9E51F40633E78 CRC64;	
Query Match	100.0%	Score 597; DB 4;	Length 345;
Best Local Similarity	100.0%	Pred. No. 2.7e-66;	
Matches 106; Conservative	0;	Mismatches -0;	Indels 0; Gaps
Qy	1	LITTEVRLYSCTPRNSVSREELKRTDTIWFPGCLVKRGNNACCLHCNCQCVP5	60
Db	240	LITTEVRLYSCTPRNSVSREELKRTDTIWFPGCLVKRGNNACCLHCNCQCVP5	299
Qy	61	KVTKKYHEVLQLRPTGVRLHKSLTDVALEHHECDVCVRGSTGG	106
Db	300	KVTKKYHEVLQLRPTGVRLHKSLTDVALEHHECDVCVRGSTGG	345

RA	Ding H., Wu X., Kim I., Tam P.P.L., Koh G.Y., Nagy A.; "The mouse Pdgf gene: dynamic expression in embryonic tissues during organogenesis." ; Mech. Dev. 96:209-213(2000).	Db	300 KVTKKYHEVLQLRPKIGVKGLHKSLLTDALEHHEECDCVGRGNTGG 345
RT	"The mouse Pdgf gene: dynamic expression in embryonic tissues during organogenesis." ; Mech. Dev. 96:209-213(2000).	RESULT	6
RT	CC -!- SIMILARITY: CONTAINS 1 CUB DOMAIN.	Q9I946	PRELIMINARY; PRT; 345 AA.
RT	DR EMBL: AF286725; AAF91483..1; -.	ID Q9I946	
RT	MGD: MGI:1859631; PdgfC.	AC Q9I946;	
RT	InterPro: IPR000859; CUB.	DT 01-OCT-2000 (TREMBLrel. 15, Created)	
RT	InterPro: IPR000072; PDGF.	DT 01-OCT-2000 (TREMBLrel. 15, Last sequence update)	
RT	PTM; PS00431; CUB; 1.	DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)	
RT	SMART: SM00042; CUB; 1.	DE SPINAL CORD-DERIVED GROWTH FACTOR.	
RT	SMART: SM00141; PDGF; 1.	GN SCDFC.	
RT	PROSITE: PS01180; CUB; 1.	OS Gallus gallus (chicken).	
RT	PROSITE: PS50278; PDGF; 2; 1.	OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;	
SEQ	SEQUENCE 345 AA; 38886 MW; FA1486BED6D362F8 CRC64;	OC Gallus.	
OC		OC NCBI_TAXID=9031;	
OX		RN [1]	
OX		SEQUENCE FROM N.A.	
OX		RC STRAIN=WWHITE LECHORN; TISSUE=SPINAL CORD;	
OX		RX MEDLINE=20317014; PubMed=10858496;	
OX		RA Hamada T., Uji-Tei K., Miyata Y.;	
OX		RT "A novel gene derived from developing spinal cords, SCDFC, is a unique member of the PDGF/VPGF family.";	
OX		RL FEBS Lett. 475:97-102(2000).	
CC	-!- SIMILARITY: CONTAINS 1 CUB DOMAIN.	CC	
DR	EMBL: AB033829; BAB0365_1; -.	DR EMBL; AB033829; BAB0365_1;	
DR	InterPro; IPR000859; CUB.	DR InterPro; IPR000072; PDGF.	
DR	Pfam; PF000431; CUB; 1;	DR Pfam; PF000431; CUB; 1;	
DR	SMART; SM00042; CUB; 1;	DR SMART; SM00042; CUB; 1;	
DR	PROSITE; PS01180; CUB; 1;	DR PROSITE; PS01180; CUB; 1;	
DR	PS50278; PDGF; 2; 1.	DR PS50278; PDGF; 2; 1.	
SQ	SEQUENCE 345 AA; 38940 MW; 97ACEA992BF5128C CRC64;	Query Match Score 88.3%; Score 527; DB 13; Length 345; Best Local Similarity 85.8%; Pred. No. 1 5e-57; Matches 91; Conservative 9; Mismatches 6; Indels 0; Gaps 0;	
Qy	1 LLEBEVRVLYSCPRNFVSIREELRKDTTFPFGCLLVKRGGNACCLHNNECQCVPS 60	Qy 1 LLTEEVRYLYSCPRNFVSIREELRKDTTFPFGCLLVKRGGNACCLHNNECQCVPS 60	
Db	240 LLKEEVLYSCPRNFVSIREELRKDTTFPFGCLLVKRGGNACCLHNNECQCVPR 299	Db 240 LLKEEVLYSCPRNFVSIREELRKDTTFPFGCLLVKRGGNACCLHNNECQCVPR 299	
Qy	61 KVTKKYHEVLQLRPKIGVRGLHKSLLTDALEHHEECDCVCRSTGG 106	Qy 61 KVTKKYHEVLQLRPKIGVRGLHKSLLTDALEHHEECDCVCRSTGG 106	
Db	300 KVTKKYHEVLQLRPKIGVKGLHKSLLTDALEHHEECDCVCRSGNAGG 345	Db 300 KVTKKYHEVLQLRPKIGVRGLHKSLLTDALEHHEECDCVCRSGNAGG 345	
RESULT	5	Query Match Score 88.3%; Score 527; DB 13; Length 345; Best Local Similarity 85.8%; Pred. No. 1 5e-57; Matches 91; Conservative 9; Mismatches 6; Indels 0; Gaps 0;	
Q9E0X6	PRELIMINARY; PRT; 345 AA.	Q9E0X6	
ID		Q9E0X6	
AC		AC	
DT	01-MAR-2001 (TREMBLrel. 16, Created)	DT 01-JUN-2001 (TREMBLrel. 17, Created)	
DT	01-MAR-2001 (TREMBLrel. 16, Last sequence update)	DT 01-JUN-2001 (TREMBLrel. 17, Last sequence update)	
DT	01-DEC-2001 (TREMBLrel. 19, Last annotation update)	DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)	
DE	SPINAL CORD-DERIVED GROWTH FACTOR.	DE	
GN	RSCDFC.	GN RSCDFC.	
OS	Rattus norvegicus (Rat);	OS Rattus norvegicus (Rat);	
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	OC Eukaryota; Metazoa; Chordata; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.	
NCBI_TAXID	10116;	NCBI_TAXID=10116;	
RN	[1]	RN [1]	
RP	SEQUENCE FROM N.A.	RP SEQUENCE FROM N.A.	
RT	STRAIN=WSTAR; TISSUE=KIDNEY;	RT STRAIN=WSTAR; TISSUE=KIDNEY;	
RT	MEDLINE=21092670; PubMed=11162582;	RT MEDLINE=21092670; PubMed=11162582;	
RT	RA Hamada T., Uji-Tei K., Imaki J., Miyata Y.;	RA Hamada T., Uji-Tei K., Imaki J., Miyata Y.;	
RT	"Molecular Cloning of SCDFC-B, a Novel Growth Factor Homologous to SCDF/PDG-F-C/follistatin.";	RT "Molecular Cloning of SCDFC-B, a Novel Growth Factor Homologous to SCDF/PDG-F-C/follistatin.";	
RT	Biochem. Biophys. Res. Commun. 280:733-737(2001).	RT Biochem. Biophys. Res. Commun. 280:733-737(2001).	
CC	-!- SIMILARITY: CONTAINS 1 CUB DOMAIN.	CC -!- SIMILARITY: CONTAINS 1 CUB DOMAIN.	
DR	EMBL: AB033830; BAB19969..1; -.	DR EMBL: AB033830; BAB19969..1; -.	
DR	InterPro; IPR000859; CUB.	DR InterPro; IPR000859; CUB.	
DR	Pfam; PF00431; CUB; 1.	DR Pfam; PF00431; CUB; 1.	
DR	SMART; SM00042; CUB; 1.	DR SMART; SM00042; CUB; 1.	
DR	PROSITE; PS01180; CUB; 1.	DR PROSITE; PS01180; CUB; 1.	
DR	PS50278; PDGF; 2; 1.	DR PS50278; PDGF; 2; 1.	
SQ	SEQUENCE 345 AA; 38734 MW; F296DA6E9B765D10 CRC64;	SQ SEQUENCE 345 AA; 38734 MW; F296DA6E9B765D10 CRC64;	
RESULT	7	Query Match Score 94.3%; Score 563; DB 11; Length 345; Best Local Similarity 93.4%; Pred. No. 4.e-62; Matches 3; Mismatches 4; Indels 0; Gaps 0;	
Q9D1L8	PRELIMINARY; PRT; 290 AA.	Q9D1L8	
ID		Q9D1L8	
AC		AC	
DT	01-JUN-2001 (TREMBLrel. 17, Created)	DT 01-JUN-2001 (TREMBLrel. 17, Last sequence update)	
DT	01-DEC-2001 (TREMBLrel. 19, Last annotation update)	DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)	
DE	111003109RKC PROTEIN	DE 111003109RKC PROTEIN	
GN	111003109RKC.	GN 111003109RKC.	
OS	Mus musculus (Mouse).	OS Mus musculus (Mouse).	
OC	Eukaryote; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.	OC Eukaryote; Metazoa; Chordata; Rodentia; Sciurognathi; Muridae; Murinae; Mus.	
NCBI_TAXID	10090;	NCBI_TAXID=10090;	
RN	[1]	RN [1]	
RP	SEQUENCE FROM N.A.	RP SEQUENCE FROM N.A.	
RC	STRAIN=C57BL/6J; TISSUE=EMBRYO;	RC STRAIN=C57BL/6J; TISSUE=EMBRYO;	
RX	MEDLINE=21085660; PubMed=11217351;	RX MEDLINE=21085660; PubMed=11217351;	
RA	Kawai J., Shinagawa A., Yoshino M., Itoh M., Ishii Y., Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S., Aizawa K., Izawa M., Niishi K., Kiyosawa H., Rondo S., Saito R., Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R., Kedoya K., Matsuda H. A., Ashburner M., Batzalov S., Casavant T., Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,	RA Kawai J., Shinagawa A., Yoshino M., Itoh M., Ishii Y., Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S., Aizawa K., Izawa M., Niishi K., Kiyosawa H., Rondo S., Saito R., Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R., Kedoya K., Matsuda H. A., Ashburner M., Batzalov S., Casavant T., Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,	

RA	Kuehl P., Lewis S., Matsuura Y., Nikaido I., Pesole G., Quackenbush J., Schramm L.M., Staubli F., Tomita M., Wagner L., Washio T., Sakai K., Okido T., Furui M., Ago H., Baldarelli R., Barsh G., Blate J., Boffelli D., Bojunga N., Carninci P., de Bonalido M.R., Giusinrich S., Hill D., Fletcher M., Fujita M., Kamiya M., Lee N.H., Lyons P., Marchionni L., Mashima J., Marzocchelli J., Monbaerts P., Norcone P., Ring B., Rodriguez I., Sakamoto N., Suzuki H., Sato K., Schenckebach C., Seiya T., Shibusawa Y., Storch K.-F., Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L., Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Hayashizaki Y.;	Query Match Score 51.2%; Best Local Similarity 52.9%; Matches 54; Conservative 13; Indels 3; Gaps 1;
RT	"Functional annotation of a full-length mouse cDNA collection.";	
CC	-1 SIMILARITY: CONTAINS 1 CUB DOMAIN.	
DR	EMBL; AK003359; BAB2275; 1;	
DR	MGD-MGI:1919035; 110003105Rik.	
DR	InterPro; IPR00859; CUB.	
DR	InterPro; IPR000072; PDGF.	
DR	PFam; PF00031; CUB; 1.	
DR	SMART; SM00141; PDGF; 1.	
DR	PROSITE; PS01180; CUB; 1.	
DR	PROSITE; PS50378; PDGF; 2; 1.	
SQ	SEQUENCE 290 AA; 33425 MW; 14214509E6717D4B CRC64;	
RESULT 9		
ID	Q9ZP0	PRELIMINARY;
ID	Q9ZP0	PRT; 370 AA.
AC	Q9ZP0;	PRELIMINARY;
DT	01-MAR-2001 (TREMBLrel. 16, Created)	
DT	01-MAR-2001 (TREMBLrel. 16, Last sequence update)	
DR	01-DEC-2001 (TREMBLrel. 19, Last annotation update)	
DE	SPINAL CORD-DERIVED GROWTH FACTOR-B (MSTP36) (IRIS-EXPRESSED GROWTH FACTOR LONG FORM) (PLATELET-DERIVED GROWTH FACTOR D).	
DE	HSDGFB OR IEGF OR PDGF.	
GN	OS Homo sapiens (Human).	
OC	OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.	
OX	NCBI_TAXID=9606;	
RN		
RP	SEQUENCE FROM N.A.	
RC	TISSUE-AORTA;	
RA	Liu B., Liu Y.Q., Wang X.Y., Zhao B., Sheng H., Zhang C.L., Zhang J., Wei Y.J., Xu Y.Y., Ye J., Song L., Gao Y., Zhang J.F., Gao R.L., Wu Q., Olang B.Q., Cao H.Q., Zhao Y., Liu L.S., Ding J.F., Hui R.T.;	
RA	RA Yuan J.G., Liew C.C., Zhao M.S., Hui R.T.;	
RL	RA Submitted (DEC-1998) to the EMBL/GenBank/DDBJ databases.	
RN		
RP	SEQUENCE FROM N.A.	
RC	TISSUE-IRIS;	
RA	RA Wistow G.;	
RA	RA Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.	
RN		
[3]		
RESULT 8		
ID	Q9BIV5	PRELIMINARY;
AC	Q9BIV5;	PRT; 364 AA.
DT	01-JUN-2001 (TREMBLrel. 17, Created)	
DT	01-JUN-2001 (TREMBLrel. 17, Last sequence update)	
DT	01-DEC-2001 (TREMBLrel. 19, Last annotation update)	
DE	IRIS-EXPRESSED GROWTH FACTOR SHORT FORM.	
GN	OS Homo sapiens (Human).	
OC	OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.	
OX	NCBI_TAXID=9606;	
RN		
RP	SEQUENCE FROM N.A.	
RC	TISSUE-IRIS;	
RA	RA Wislow G.;	
RT	RT "Iris-expressed Growth Factor (IEGF)." ; Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.	
CC	CC -1 SIMILARITY: CONTAINS 1 CUB DOMAIN.	
DR	DR EMBL; AY027518; ARK00859; CUB; 1.	
DR	InterPro; IPR000072; PDGF.	
DR	InterPro; IP000531; TonB_boxC.	
DR	PFam; PF00431; CUB; 1.	
DR	SMART; SM00042; CUB; 1.	
DR	SMART; SM0141; PDGF; 1.	
DR	PROSITE; PS01180; CUB; 1.	
DR	PROSITE; PS50278; PDGF; 2; 1.	
DR	PROSITE; PS00430; TONB_DEPENDENT_REC_1; UNKNOWN_1.	
SQ	SEQUENCE 364 AA; 42166 MW; 2453538DEA9EAC CRC64;	

DR	Pfam; PF00431; CUB; 1.	DR	01-DEC-2001 (TREMBLrel. 19, Last annotation update)
DR	SMART; SM00042; CUB; 1.	DE	PLATELET-DERIVED GROWTH FACTOR D.
DR	SMART; SM00141; PDGF; 1.	OS	Mus musculus (Mouse).
DR	PROSITE; PS01180; CUB; 1.	OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
DR	PROSITE; PS00278; PDGE_2; 1.	OC	Mammalia; Eutheria; Rodentia; Sciurognath; Muridae; Murinae; Mus.
DR	PROSITE; PS00430; TONB_DEPENDENT_REC_1; UNKNOWN_1.	NCBI_TaxID	10090;
SEQUENCE	370 AA; 42848 MW; D387485E7BB7674 CRC64;	RN	[1]
RP	SEQUENCE FROM N.A.	RP	
RC	STRAIN=BALB/C;	RC	
RX	MEDLINE=21231380; PubMed=11331882;	RX	
Query Match	51.2%; Score 305.5; DB 4; Length 370;	RA	La Rochelle W.J., Jeffers M., McDonald W.F., Chillakuru R.A.,
Best Local Similarity	52.9%; Pred. No. 7.4e-30; 1;	RA	Giese N.A., Lokker N.A., Sullivan C., Boldog F.L., Yang M., Vernet C.,
Matches	54; Conservative 13; Mismatches 32; Indels 3; Gaps 1;	RA	Burgess C.B., Fernandez E., Deegler L.L., Rittman B., Shimkets J.,
Qy	2 LTEEVRLYSCPRNFNSYIREELKRTDTIFWPGCLLVKRCGGNCACCLHNNECCQCVPSK 61	RA	Shimkets R.A., Rothberg J.M., Lichenstein H.S.;
Db	263 LNDKAKRYSCTPRNFSYIREELKRTDTIFWPGCLLVKRCGGNCACCLHNNECCQCVPSK 61	RT	*PDGF_D, A Novel Protease Activated Growth Factor.;
Qy	62 VTKKYHEVLQLRP--KTGVRLHKSLSITDVALEHHHECDCYC 100	RL	Nat. Cell Biol. 3:517-521 (2001).
Db	323 TVKKYHEVLQLFEPGHIKRRGAKNMAVDIQLDHHERCDCIC 364	DR	EMBL; AF33583; AAK38839.1; -;
Qy	62 VTKKYHEVLQLRP--KTGVRLHKSLSITDVALEHHHECDCYC 100	SQ	SEQUENCE 370 AA; 42809 MW; 9E80B4CF6813BFBE CRC64;
Query Match	51.2%; Score 305.5; DB 11; Length 370;	Score	305.5;
Best Local Similarity	52.0%; Pred. No. 7.4e-30; 1;	DB	11;
Matches	53; Conservative 16; Mismatches 30; Indels 3; Gaps 1;	Length	370;
Qy	2 LTEEVRLYSCPRNFNSYIREELKRTDTIFWPGCLLVKRCGGNCACCLHNNECCQCVPSK 61	Q99JTM4	PRELIMINARY;
Db	263 LNDKAKRYSCTPRNFSYIREELKRTDTIFWPGCLLVKRCGGNCACCLHNNECCQCVPSK 322	ID	PRT; 34 AA.
Qy	62 VTKKYHEVLQLRP--KTGVRLHKSLSITDVALEHHHECDCYC 100	Q99JTM4	PRELIMINARY;
Db	323 TVKKYHEVLQLFEPGHIKRRGAKNMAVDIQLDHHERCDCIC 364	AC	PRT; 34 AA.
RESULT	12		
Q9EQ01	PRELIMINARY;	Q99JTM4	PRELIMINARY;
AC	PRT; 370 AA.	ID	PRT; 34 AA.
Q9EQ01	16	Q99JTM4	PRELIMINARY;
AC	16	ID	PRT; 34 AA.
01-MAR-2001	(TREMBLrel. 16, Created)	DT	01-JUN-2001 (TREMBLrel. 17, Created)
01-MAR-2001	(TREMBLrel. 16, Last sequence update)	DT	01-JUN-2001 (TREMBLrel. 17, Last sequence update)
01-DEC-2001	(TREMBLrel. 19, Last annotation update)	DT	01-DEC-2001 (TREMBLrel. 19, Last annotation update)
SPINAL-CORD DERIVED GROWTH FACTOR-B.		DE	SIMILAR TO PLATELET-DERIVED GROWTH FACTOR, C POLYPEPTIDE (FRAGMENT).
GN		DE	(FRAGMENT).
OS		OS	Mus musculus (Mouse).
Rattus norvegicus (Rat).		OC	Bukarriota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;		OC	Mammalia; Eutheria; Rodentia; Sciurognath; Muridae; Murinae; Mus.
Mammalia; Eutheria; Rodentia; Sciurognath; Murinae; Rattus.		OC	NCBI_TaxID=10090;
OX		RN	[1]
RN		RP	SEQUENCE FROM N.A.
RP	SEQUENCE FROM N.A.	AC	Q99JTM4;
RX	MEDLINE=21092670; PubMed=11162582;	DT	01-JUN-2001 (TREMBLrel. 17, Created)
RA	Hamada T., Ueda K., Imai J., Miyata Y.; Molecular Cloning of SCDFG-B, a Novel Growth Factor Homologous to SCDFG/PDGF-C/fallostein.;	DT	01-JUN-2001 (TREMBLrel. 17, Last sequence update)
RT	RT	DT	01-DEC-2001 (TREMBLrel. 19, Last annotation update)
RT	Biochem. Biophys. Res. Commun. 280:733-737 (2001).	DE	SIMILAR TO PLATELET-DERIVED GROWTH FACTOR, C POLYPEPTIDE
RL	CC	DE	(FRAGMENT).
CC	-1- SIMILARITY: CONTAINS 1 CUB DOMAIN.	OS	Mus musculus (Mouse).
EMBL; AB052170; BAB1820.1; -.		OC	Bukarriota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
DR	InterPro; IPR000859; CUB.	OC	Mammalia; Eutheria; Rodentia; Sciurognath; Muridae; Murinae; Mus.
DR	InterPro; IPR00072; PDGF.	OC	NCBI_TaxID=10090;
DR	Pfam; PF00431; CUB; 1.	RN	[1]
DR	SMART; SM00042; CUB; 1.	RP	SEQUENCE FROM N.A.
DR	SMART; SM00141; PDGF; 1.	RC	TISSUE-MAMMARY TUMOR.
DR	PROSITE; PS01180; CUB; 1.	RC	TISSUE;
DR	PROSITE; PS00278; PDGF; 2.	RA	Strasbourg R.;
DR	SEQUENCE 370 AA; 42809 MW; 7BE8A251F679BF73 CRC64;	RL	Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases.
Qy	2 LTEEVRLYSCPRNFNSYIREELKRTDTIFWPGCLLVKRCGGNCACCLHNNECCQCVPSK 61	DR	EMBL; BC006027; AAH06027.1; -.
Db	263 LNDKAKRYSCTPRNFSYIREELKRTDTIFWPGCLLVKRCGGNCACCLHNNECCQCVPSK 61	FT	NON_TER 1
Qy	62 VTKKYHEVLQLRP--KTGVRLHKSLSITDVALEHHHECDCYC 100	SQ	SEQUENCE 34 AA; 3618 MW; F4AB6A3A414AE9E CRC64;
Db	323 TVKKYHEVLQLFEPGHIKRRGAKNMAVDIQLDHHERCDCIC 364	Score	30.2%;
Qy	2 LTEEVRLYSCPRNFNSYIREELKRTDTIFWPGCLLVKRCGGNCACCLHNNECCQCVPSK 61	Best Local Similarity	91.2%;
Db	263 LNDKAKRYSCTPRNFSYIREELKRTDTIFWPGCLLVKRCGGNCACCLHNNECCQCVPSK 61	Matches	2;
Qy	62 VTKKYHEVLQLRP--KTGVRLHKSLSITDVALEHHHECDCYC 100	Indels	1;
Db	323 TVKKYHEVLQLFEPGHIKRRGAKNMAVDIQLDHHERCDCIC 364	Gaps	0;
RESULT	13		
Q92517	PRELIMINARY;	Q91ZE4	PRELIMINARY;
AC	PRT; 370 AA.	ID	PRT; 326 AA.
Q92517	19	Q91ZE4	PRELIMINARY;
AC	PRT; 370 AA.	AC	PRT; 326 AA.
01-DEC-2001	(TREMBLrel. 19, Created)	DT	01-DEC-2001 (TREMBLrel. 19, Last sequence update)
01-DEC-2001	(TREMBLrel. 19, Last sequence update)	DT	01-DEC-2001 (TREMBLrel. 19, Last annotation update)

DE VEGF-D.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=N-SPRAGUE-DAWLEY;
RA Kirklin V., Mazitschek R., Krishnan J., Steffen A., Waltenberger J.,
RA Pepper M.S., Giannis A., Sleeman J.P.;
RT "Characterization of indolinones which specifically inhibit VEGF-C-and
RT VEGF-D-induced activation of VEGFR-3 but not VEGFR-2.";
RT Eur. J. Biochem. AY032728; AAK96008.1;
DR EMBL; AY032728;
SQ 326 AA; 37106 MW; D7AEBA6C9FABB7D CRC64;

Query Match 19.7%; Score 117.5; DB 11; Length 326;
Best Local Similarity 33.0%; Pred. No. 2e-05;
Matches 35; Conservative 15; Mismatches 41; Indels 15; Gaps 6;

Qy 1 LLTEEVRLSCTPRESKREEL-KRTSPFWGCLLVKRCGGNCACCLHNCNECCOY- 58
Db 106 VIDEEWQRQSPRTECVAESEGLKTTNFFRKPCVNFRCGG--CC--NEESVMCMN 160
Qy 59 --PSKVTKYHEVQLRPTGYRLHKSLTDVALEHHECDVCVRG 102
Db 161 TSTSYISKOLFEEISV--PLTSV---PELVPVKIANHNCCKCLPTG 200

RESULT 14
Q90x23 PRELIMINARY; PRT; 146 AA.
ID Q90x23 PRELIMINARY; PRT; 146 AA.
AC Q90x23;
DT 01-DEC-2001 (TREMBLrel. 19, Created)
DT 01-DEC-2001 (TREMBLrel. 19, Last sequence update)
DT 01-DEC-2001 (TREMBLrel. 19, Last annotation update)
DE VASCULAR ENDOTHELIAL GROWTH FACTOR PRECURSOR.
OS Bothrops jararaca (Jararaca).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosaurs; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC Viperidae; Crotalinae; Bothrops.
OX NCBI_TaxID=8724;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-VENOM GLAND;
RX MEDLINE=2152345; PubMed=11517227;
RA Junqueira de Azevedo I.L.M., Farsky S.H.P., Oliveira M.L.S., Ho P.L.;
RT "Molecular Cloning and Expression of a Functional Snake Venom Vascular
RT Endothelium Growth Factor (VEGF) from the Bothrops insularis Pit
RT Viper. A New Member of the VEGF Family of Proteins.";
RL J. Biol. Chem. 276:39836-39842 (2001).
DR EMBL; AY033152; AAK52103.1. - .
KW SIGNAL.
FT SIGNAL. 1 24 POTENTIAL.
FT CHAIN. 25 146 VASCULAR ENDOTHELIAL GROWTH FACTOR.
SQ SEQUENCE 146 AA; 16377 MW; 451EEF514ER9408E CRC64;

Query Match 19.2%; Score 114.5; DB 13; Length 146;
Best Local Similarity 31.1%; Pred. No. 2e-06;
Matches 33; Conservative 14; Mismatches 42; Indels 17; Gaps 6;
Qy 5 EVRLYS-CTPRNSVSREELK RTDIFWPGOLLVKRCGGNCACCLHNCNECCQVPSKV 62
Db 31 EVYRHSSVQCPRELVLSLEYGEISHIFRPSCVTAALRGG--CCTDSELECTAGKRS 87
Qy 63 TKKYHEVQLRPTGYRLHKSLTD--VALHEECDCVCRGSTG 105
Db 88 VGR-EIMRLSP-----HKGTSKEVMMQFERTDCERPRSA 124

